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PACIFIC FISHERMAN

Tribulations In Tuna p11

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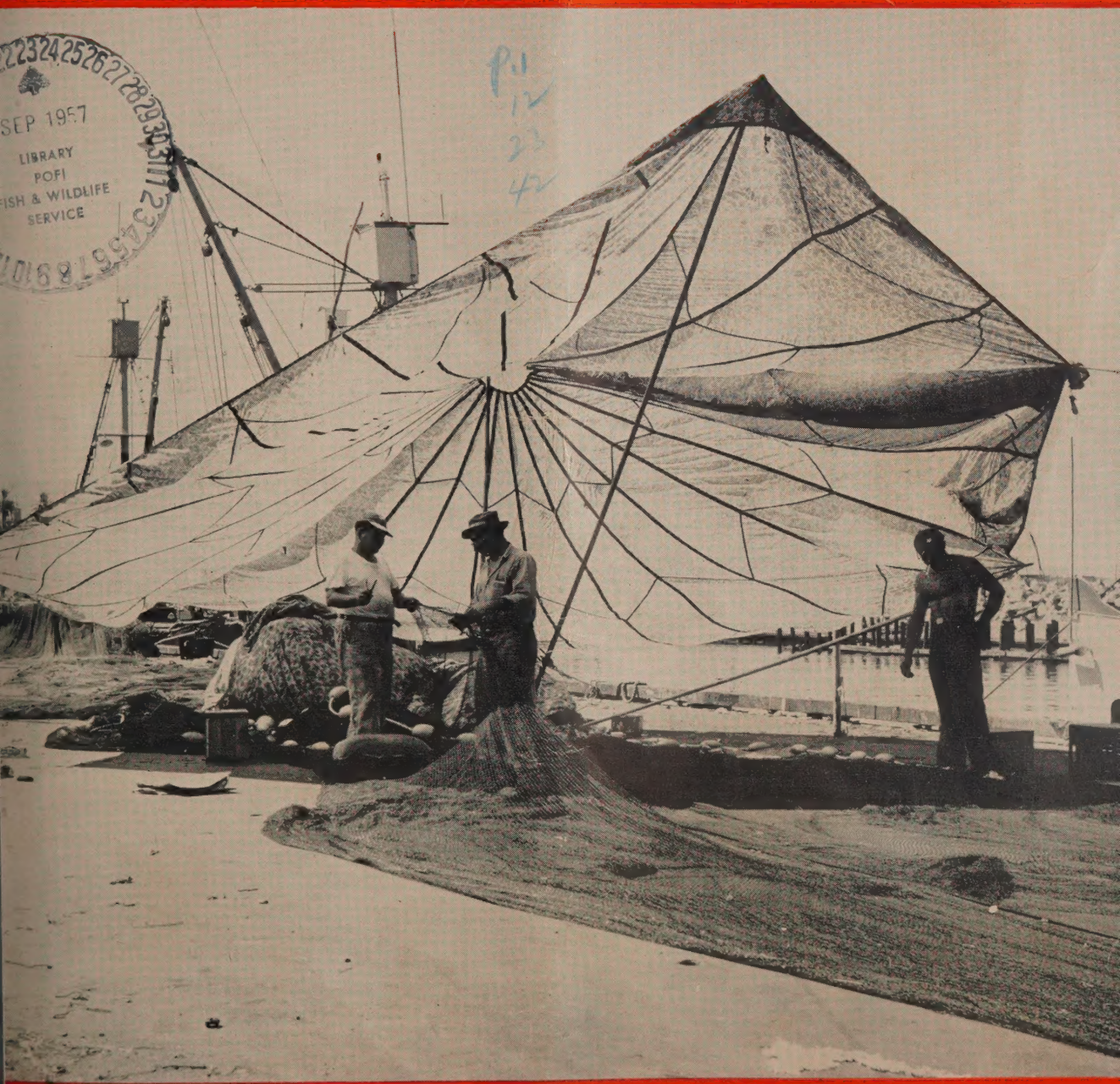
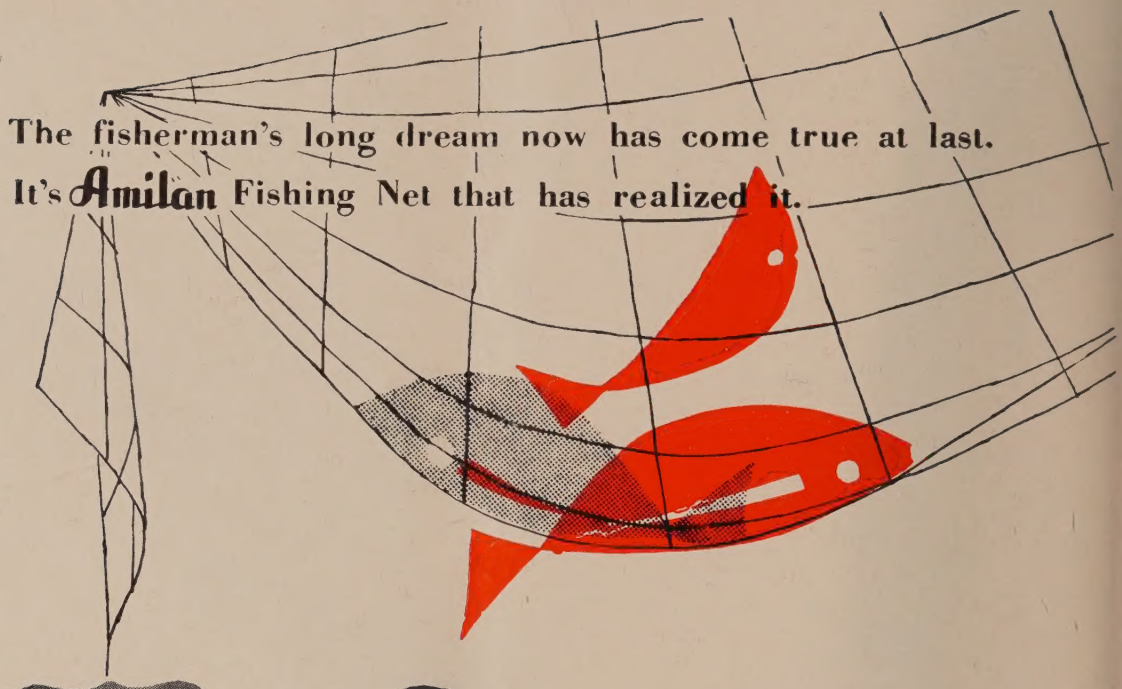


PARACHUTE PARASOL—Tuna purse seiners at San Pedro shelter themselves and their nets under a surplus parachute, a "make-do" item of an infinite variety of uses.

A MILLER FREEMAN PUBLICATION

The fisherman's long dream now has come true at last.
It's **Amilan** Fishing Net that has realized it.



Amilan
FISHING NET

Because:

1. It brings you larger catches than conventional types of net, particularly in the case of an Amilan gill net.
2. It is strong, durable, and less liable to break. It helps retrench your repair and replacement expenses.
3. It is lighter than any other kinds of net. It means less labor force and less fuel consumption.
4. It does not easily decay. Its life is semi-permanent.
5. No drying or preservative is required. Expenses and labor for drying and treatment are saved. Spare nets are almost unnecessary.
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The world's highest workmanship plus these unique merits is the world famous "Amilan" Fishing Net. It always carries the label shown above. "Amilan" is the trade mark of our nylon. Toyo Rayon Co., Ltd., Du Pont's exclusive licensee in Japan on nylon production.

Pamphlet "Amilan Fishing Net" is available, and dealers will be introduced upon request

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PACIFIC FISHERMAN

Vol. 55 No. 10

SEPTEMBER 1957

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A MILLER FREEMAN PUBLICATION

Van Camp Announces Withdrawal From International Advertising

● Several days after representatives of the American and Japanese tuna industries met in Los Angeles to discuss a joint advertising program, Gilbert Van Camp Jr., president of Van Camp Sea Food Co., Inc., announced that his company had withdrawn from the program.

"On advice of counsel," said Mr. Van Camp, "we withdrew because of the grave danger of violating regulations of the Federal Trade Commission. Further, we do not believe that this joint advertising program is to the best interest of Van Camp Sea Food Company or the American tuna industry."

At the recent meeting, Japanese tuna canners proposed that the U.S. tuna industry match their $290,000 for a nationwide advertising program promoting the sale of canned tuna in the United States.

Sockeye Run to Fraser Continues Extremely Late

● With the Sockeye run still yielding an average of about 50,000 salmon per day of fishing to the end of August, the pack was still unknown at presstime and it began to be apparent that the numerical catch would be about 74% of that for the cycle year 1953. In cases packed the percentage will be less, for this year's Sockeye are smaller than normal.

To August 26 American fishermen had 1,590,426 Sockeyes and the Canadians 1,277,054 for a total of 2,867,480, against 3,914,984 to even date in 1953.

An extraordinary 20% of 3-year-males and the lateness that the run continued in some volume were the remarkable features of 1957 Sockeye history.

Bluefin Tuna Catch Is Best In Years for California

● Heaviest run of Bluefin tuna to strike Southern California waters in years was encountered by the purse seine fleet; but ironically it occured at a time when the industry was in difficulty, prices low and the demand for tuna weak.

Sales were made with difficulty at prices ranging from $240 to $220 per ton.

California Domestic Tuna Deliveries

Cumulative totals for three years through Aug. 17 in tons as reported by U.S. Market News Service.

	Albacore	Bluefin	Skipjack	Yellowfin	Total
Bait and Jig boats	8,231	. . .	23,349	38,243	69,823
Seiners	38	5,927	2,804	14,924	23,693
1957	**8,269**	**5,927**	**26,153**	**53,167**	**93,516**
1956	8,243	3,501	34,869	61,567	108,180
1955	6,689	3,057	30,733	37,485	77,964

California Imports of Frozen Tuna

Cumulative data in tons through **August 17,** each, year from U.S. Market News Service.

Port	Albacore	Skipjack	Yellowfin	Unclass.	Total
San Francisco	2,401	. . .	3,586	. . .	5,987
San Pedro	10,997	6,025	10,846	. . .	27,868
San Diego	402	777	853	280	2,313
Total, 1957	**13,801**	**6,802**	**15,285**	**280**	**36,168**
Total, 1956	6,972	4,268	19,785	81	31,106
Total, 1955	18,881	7,144	15,823	333	42,181

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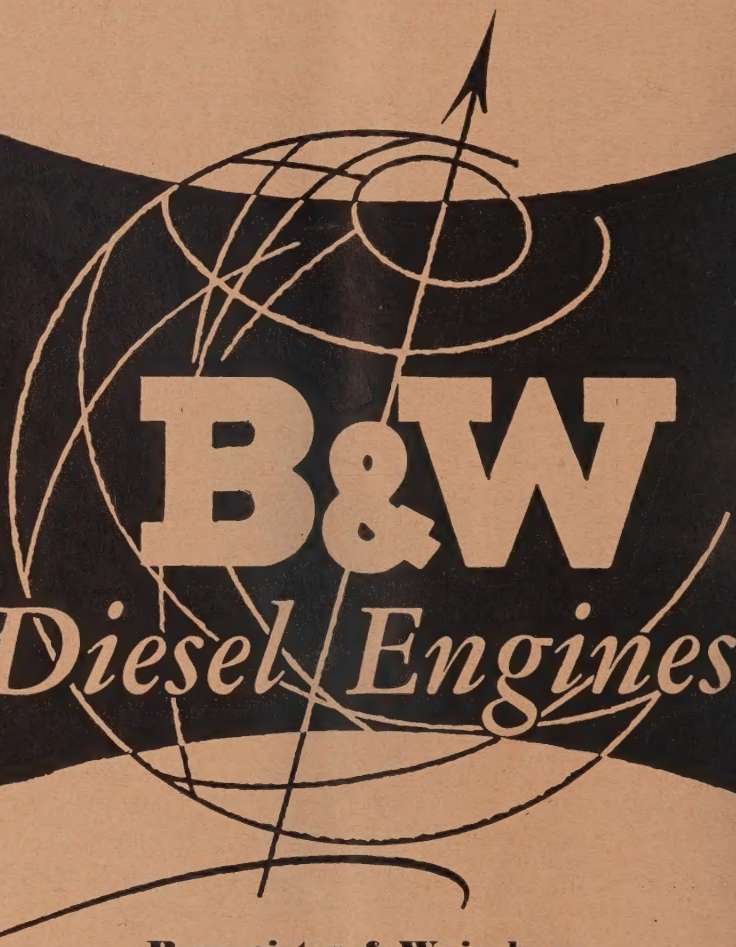
... for large motor ships, trawlers, coasters, fishing cutters, and for stationary power plants.



Burmeister & Wain have established a subsidiary company in British Columbia

In order to develop the contact with our connections in British Columbia, we have established a subsidiary company in Vancouver. The name and address of the company will be:

BURMEISTER & WAIN OF B. C. LTD.
1784 West Georgia Street, Vancouver 5, B.C.

This new company, whose parent company is the world's leading diesel makers, looks forward to taking part in the solution of any diesel engine problem.

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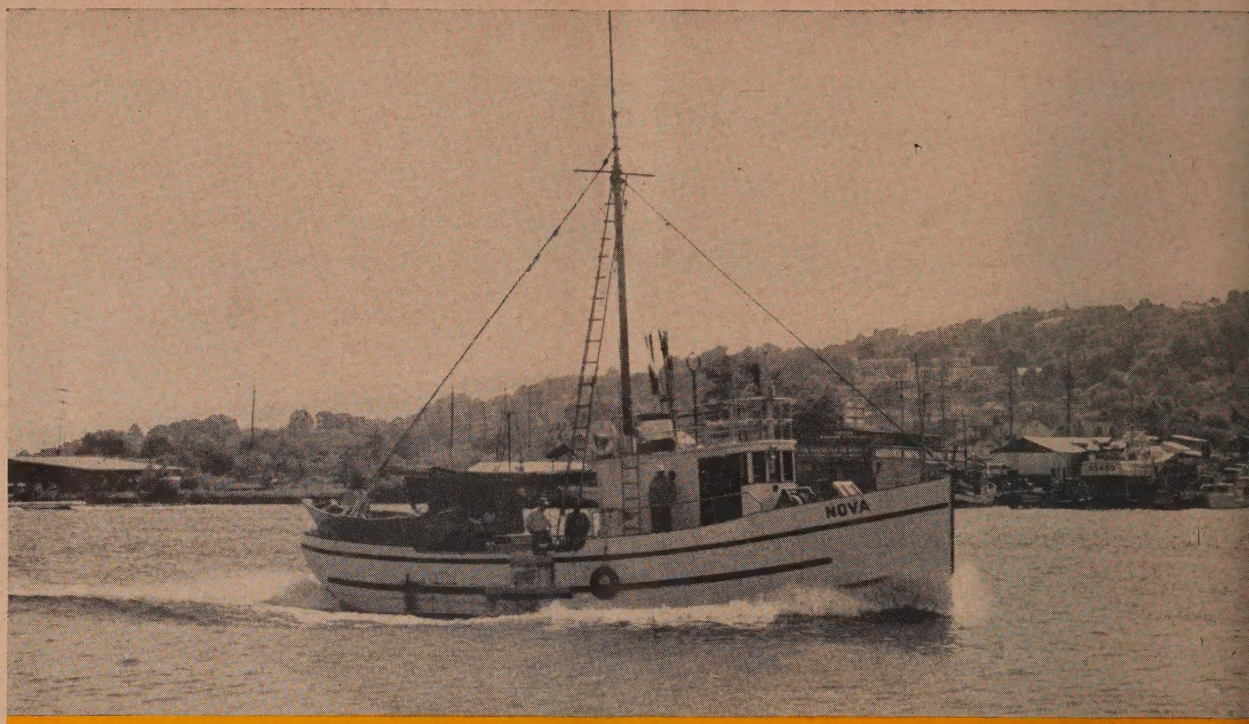
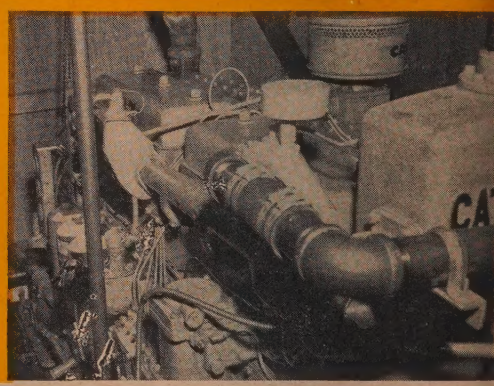


"You get the horsepower you pay for with a CAT* Engine. It's always dependable."

George Mathisen, Seattle, Wash.



George Mathisen owns and skippers the *Nova,* a 27-ton halibut boat that fishes off the West Coast from California to Canada. The 59-foot x 15½-foot x 8-foot boat is powered by a Caterpillar D342 Engine, swinging a 48 x 38 wheel through a 3:1 reduction gear.

The *Nova* is out seven days a week during the fishing season and has brought in catches of over 60,000 pounds. Her engine is called on for 16 to 20 hours of duty a day. With 150 HP for continuous service, it gives her a speed of 10 knots.

Dependability is a built-in quality of Caterpillar Marine Diesels. They're rugged in construction, and their heavy-duty four-cycle design reduces tinkering and maintenance time. For example, you have no cylinder ports to clean and the single-orifice fuel injection valves combine with the precombustion chamber to permit use of low-cost fuels without fouling.

Cat Diesels have always been honestly rated. Now each new engine comes to you with a signed and notarized certificate showing just what power it will deliver—another Caterpillar first!

Your Caterpillar Dealer has a full line of engines with *certified power,* up to 650 HP (maximum output capacity). You can rely on him for prompt dockside service and quality Caterpillar parts. Call him today.

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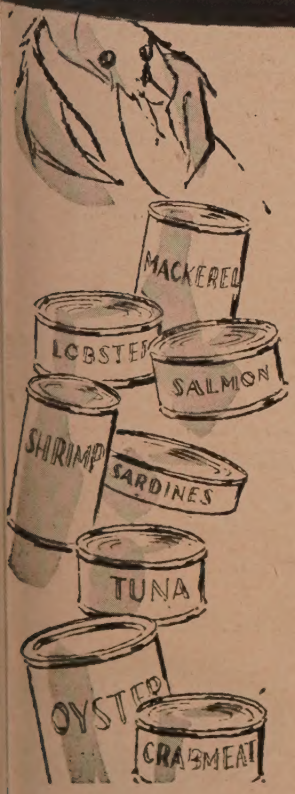

Continental service begins with precision-made cans in every size and shape for whatever fish you pack. Continental's nine can-making plants cover the West Coast, assuring you fast delivery of fish containers, when and where you need them. To give you trouble-free, faster packing operations, Continental service also includes individual research and engineering assistance from our West Coast laboratories and machinery service centers. West Coast research facilities work closely with Continental's new $7,000,000 Research and Development Center in Chicago, where the most modern equipment is being used to develop new and better ways to pack fish. For *complete* fish can service, call Continental today.

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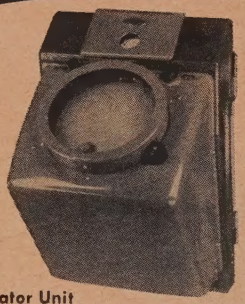

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Famous Mariners Pathfinder® Model 1500 radar offers superb performance on 1, 2, 4, 8, 16 and 32 mile ranges. This compact two-unit equipment is easy and inexpensive to install. Features three-way indicator mounting, 10" scope, built-in reflection plotter.

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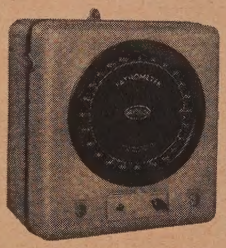
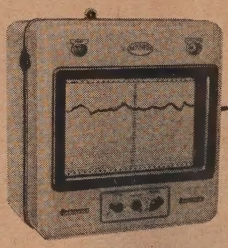


Model DE-102



Model DE-103

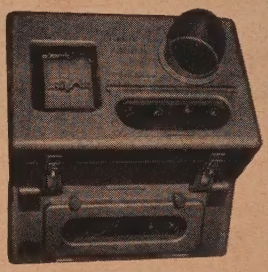
Model DE-102 flashing-red-light type depth sounder measures depths in two ranges—12 to 240 feet and 2 to 240 fathoms. Extremely accurate.

ONLY $64. PER MONTH
Model DE-102

Model DE-103 recorder type keeps a permanent record of soundings. Ranges 12-300 feet and 300-600 feet or 2-300 fathoms and 300-600 fathoms. High sounding rate shows depth variations in great detail.

ONLY $66. PER MONTH
Model DE-103

Fishfinder



Atlas-Werke Model 6491
A combination recorder and cathode ray tube indicator, the Atlas-Werke Fishfinder is made expressly for commercial fishing. Calibrated in 0-100, 100-200, 200-300, 0-500 fathoms. At the turn of a knob any 14 fathom segment of the depth may be displayed on the cathode ray indicator.

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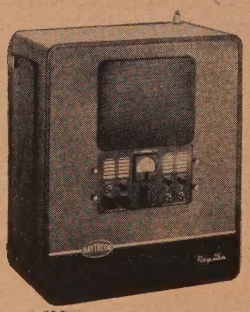

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To arrange for the lease or purchase of this fine electronic equipment, see your Raytheon salesman. Ask him about Raytheon's special package plan — lease two or more equipments and save money. Call or write your nearest Raytheon sales or service office today —

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Also available are Deutz *Auxiliary Marine Sets* of any type for the supply of light, air and water. All parts are in stock right where you need them. For detailed descriptive catalog featuring scale drawing, performance data and action shots of the more than 53 DEUTZ Water and Aircooled Diesels mail the attached Coupon today!

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A 8 M 517	230	1350
4 M 428	150	600
6 M 428	230	600
6 M 436	300	500
8 M 420	333	1000
12 M 625	500	750
8 M 545	660	375
8 M 536	750	500
1 L 612*	10	2000
2 L 612*	20	2000
4 L 612*	40	2000
6 L 614*	100	1800
12 L 614*	200	1800
8 M 366	2000	275

gine models with asterisk (*) denote aircooled Deutz Diesels.

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resists rot and mildew . . . more economical in the long ru

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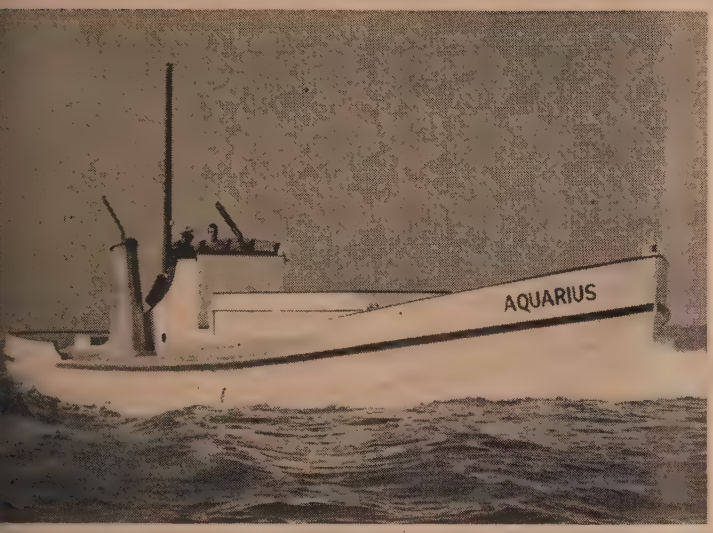
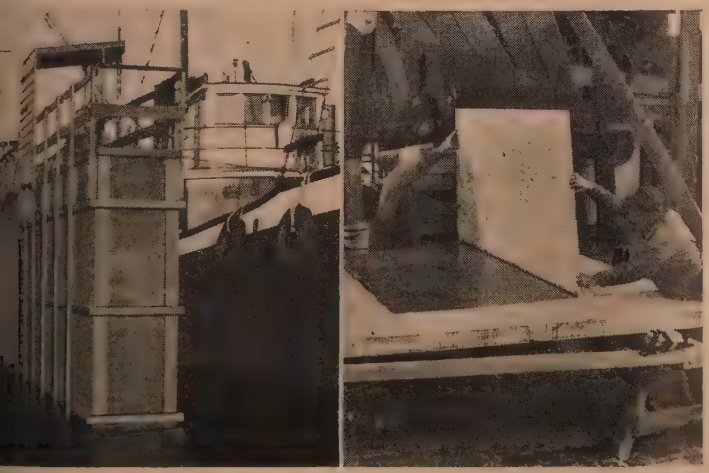
in marine construction and accessories



orty-five feet of plywood performance! Except for framing, the bait boat *quarius* is virtually 100% Exterior fir plywood—planking, bulkheads, ecks, house, ballast tanks, bait tanks, chutes. Designed by Phillip H. hearle and built by Mauricio & Sons, San Diego, for Mrs. Gladys Lynn nd Charles and Roy Everingham, the *Aquarius* has been in service since lay, 1956. Plywood provides a stronger, more rigid hull, say the builders and the plywood construction cut labor costs about one-third.



eft: Drydock at West Coast port utilizes Exterior-type fir plywood in four oyancy units with a lift of 325 tons. Each unit is 28 feet long, 20 feet high, feet wide. Construction was completed in less than a week. *Right:* Work- en glue-up a tuna clipper bulkhead with Exterior fir plywood. Large, light, gid plywood panels are ideal for almost every installation of this kind.

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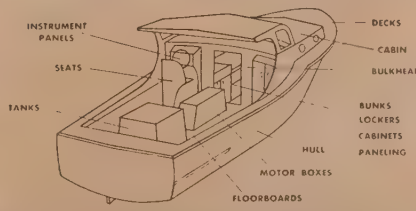

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CANCO

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Tribulations In Tuna

Largest U. S. Fishery Lays Blame For Trouble Squarely on Imports

• Things happened in the Southern California tuna industry in August as furiously as they do when a clipper is in a biting school of four-pole fish.

Many of the matters involved Washington and the national government. Congress, Federal Trade Commission, Department of the Interior, Federal Tariff Commission all were in the act; all seeking to do something for, or to, the tuna industry.

• Some of the moves had definite character. For example: the Tariff Commission will conduct another investigation of the effect of foreign competition on the American tuna industry. The Senate Finance Committee agreed to call for it; and when Finance calls the Tariff Commission investigates.

• On the other side of the coin was the consent decree written by the Federal Trade Commission and accepted by most elements of the Southern California industry. Under it they agree to forego alleged practices to which the Federal Trade Commission objected in a complaint filed just about a year ago.

The complaint was dismissed with respect to the Columbia River Packers Association, Inc., originally named in it. The corporation demurred to the complaint on the grounds that it was not involved and the commission sustained this view in its dismissal.

Imports Bitterly Blamed

• Imports received the basic blame for the demoralization by virtually all fishermen, and by most packers who would talk about it; and imports were up sharply in Southern California, particularly in Albacore, where the greatest weakness in the price of domestic fish was manifest. This fish is selling $95 per ton under the opening price of 1956.

• While still a long way from passage, a bill introduced in the Senate by Senator Magnuson of Washington and Kuchel of California provided a rallying standard for elements of the tuna industry.

The measure seeks:

To limit annual imports of tuna in any form to 25% of the 5-year average of apparent U. S. consumption; or the equivalent of 150 million pounds, round-weight basis, not as loins.

To make frozen tuna imports dutiable at 6c per lb., above 15% of average consumption, or 100 million pounds; and 3c per lb. for the first 15%, provided that the first 5% shall be duty-free.

To establish the duty on canned tuna at 45% ad valorem, instead of 35%, as at present.

To apply this duty to *all* canned tuna, whether packed in brine or in oil.

To direct the President to renegotiate reciprocal trade agreements to provide this equality of duty for canned tuna in any style.

The bill was referred to the Committee on Finance, Senator Byrd, chairman.

In the House Congressmen King, Utt and Wilson of California introduced a bill similar to the Magnuson-Kuchel pioneer, save that it would limit tuna imports to 35% of consumption of 200 million pounds; would fix duty on all canned tuna, including that in brine, at 35%; and would class as imports tuna canned in Samoa, Guam and the Virgin Islands.

Passage of such legislation at the present session of Congress is not expected.

• Fishermen's Protective Act was amended by Senate committee to include loss of fishing gear and equipment in the compensable claims; and to require that any claim in excess of $2,000 shall be referred to the U. S. Court of Claims, whose decision shall be final. The bill still has to pass the House, but won ready committee approval.

Chances for ultimate passage look good.

Price Pattern Confused

• Demoralized conditions prevailed in the tuna industry in Southern California during August, with price reductions and tied-up vessels confusing a complicated situation.

Prices generally seemed to be about $40 per ton under those prevailing a year before. Best figures for prices being paid the fishermen at presstime seemed to be: Yellowfin, $230; Bluefin, $220; Skipjack, $190; Albacore, $280.

Landings by U. S. vessels this year to Aug. 17 showed 61,592 tons by clippers, vs. 75,649 tons in the same

period of 1956.

Purse seiners, with 23,655 tons landed, were close behind 1956, when the tonnage to Aug. 17 was 24,288.

Albacore landings were virtually identical to Aug. 17 in the two years: 8,269 tons in 1957 and 8,243 tons in 1956.

• Imports to Southern California ports to Aug. 17, this year, aggregated 30,626 tons of all tunas, including 12,415 tons of Albacore.

Last year in the equivalent period imports were 20,680 tons, with 5,700 tons Albacore.

It should be noted that on a round weight basis the imports this year may be materially higher than the above figures indicate, as they undoubtedly included a much larger proportion of frozen loins than was the case in 1956.

Bluefin fishing to Aug. 17 accounted for 5,927 tons, a nice gain over the two previous seasons, when 1956 produced 3,501 tons to even date and 1955 had 3,057 tons of Bluefin.

Delays in Unloading

• Unloading of tuna clippers was being delayed in Southern California ports through August as a result of the market weakness and the inability of the operators to accommodate deliveries. This produced new bitterness in the fleet and a situation somewhat resembling that of the early summer of 1955 when as much as 13,000 tons of unloaded tuna was being held in clippers awaiting orders to unload at San Diego.

Japan Scouting Tuna Seas Toward the Coast of Peru

• Japan's systematic exploration of pelagic tuna fisheries is being extended currently further to the East than heretofore, into the shear zone between the Peruvian Current and the Equatorial Counter Current westerly from Peru. This investigation, involving waters 8,000 miles from Japan, is being carried out by the 475-ton exploratory vessel *Iwaki Maru* of the Kukushima Prefectural Fisheries Experiment Station. She left Misaki August 6.

Locale assigned to *Iwaki Maru* is the guest area from the Equator to 15° South, and from 100° West Longitude to 140° West Longitude. As the easterly limit of the area falls a considerable distance to the west of the Galapago Islands, it is not expected that the studies will involve any of the waters over which Ecuador and Peru assert jurisdiction.

Iwaki Maru is commanded by Capt. Kazuo Iizuka, with Kohei Ogata in charge of technical studies, which will involve:

1. Determination of weight and length of fish taken.
2. Analysis of stomach contents.
3. Age of tuna taken.
4. Gonad development.
5. Drift bottle releases, 50 bottles at each of 10 stations.
6. Temperature and transparency of sea water at 100-meter depths to 600 meters.
7. Tagging and release of at least 200 tuna.
8. Tests for salinity and plankton population.
9. Tests for atomic contamination of sea water.

Another Japanese exploration will be undertaken by the 602-ton *Shoyo Maru* of the Japan Fishery Agency in the oceanic area around Tahiti in the French-held Society and Marquesas islands. This is westerly and slightly south of the *Iwaki Maru* assignment.

Shoyo Maru's mission calls for a month's longline fishing, together with oceanographic and biological studies. She is due to return to Tokyo about Oct. 8. Area assigned is from 20 to 30° South Latitude; and 150 to 120° West Longitude.

The vessel will be prepared to freeze round all Albacore taken, as well as small tuna or other species. Large Yellowfin, Bigeye and swordfish will be filleted and frozen. Experimental canning aboard ship will also be undertaken.

New England Fish Co. Moves Seattle Offices

Headquarters of the New England Fish Co. were moved in August from the Exchange Building, Seattle, to the Alaska Building, 618 Second Ave., Seattle 4, Wash. The company telephone number is unchanged: ELiot 3155.

In its new location the company occupies the entire 13th floor of the building, where it enjoys much larger quarters, necessitated by its acquisition last spring of the Alaska Pacific Salmon Co. and its Alaska canneries.

George A. Dew, new president of Breast-O' Chicken Tuna, Inc., and director of operations for its parent company, Westgate California Tuna Packing Co., San Diego.

Dew Named President Of Breast-O'-Chicken

George A. Dew has been appointed president of Breast-O'-Chicken Tuna Inc., and director of operations for its parent corporation, Westgate-California Tuna Packing Co. in San Diego. Mr. Dew returned recently from his firm's facility in Paita, Peru, to assume his new duties.

A third generation Californian, Mr. Dew joined National Steel and Shipbuilding Corp. in 1946 as shipyard manager, later moving up to vice president for sales. In 1953 he moved to National Marine Terminal as president and general manager. While heading N. M.T. he also represented Westgate-California Tuna Packing Co. as vice-president.

In Peru Mr. Dew looked after the interests of both National Marine Terminal and Westgate-California in their operation of a fleet of tuna clippers and transport vessels, two freezing plants and a cannery.

Following the resignation last month of Harold P. Requa, sales promotion manager for Breast-O'-Chicken Tuna, sales manager Larry M. Kaner was appointed vice president and director of sales and advertising.

Upon his resignation from Breast-O'-Chicken Tuna, Mr. Requa automatically relinquished his title as president of the California Fish Canners Association. He will join Foote, Cone and Belding advertising agency.

Joseph M. Mardesich, vice-president of the California Fish Canners Association and president of Francon Italian Packing Co., succeeds Mr. Requa as head of the canners association.

Better Luck Next Year

One of Alaska's poorer salmon seasons was in the wind-up stages as this issue of Pacific Fisherman reached its deadline.

Scarcely an area but was disappointing, although nowhere was there anything approaching a failure.

Prospects for fall packing were dim, with the experience of 1956 still casting a chill over enthusiasm for a short, sharp bout at high prices.

What happened to dash the high hopes held for the Bristol Bay season of 1957?

Did the immense Red catch of the Japanese high seas fleets come out of runs which otherwise would have homed in Bristol Bay rivers?

Or did the fact that the Japanese had great fishing while the Americans did poorly tend to indicate they were working different stocks?

What will be the effect in 1961 and 1962 of the drouth which beset the Bristol Bay lakes and streams in the late summer, with many normal spawning areas bare and dry in the sun?

Is it possible that there is a correlation between the apparent low level of Red salmon productivity in all areas? And if so, does this not lend support to the hypothesis that, for reasons and in ways unknown, survival conditions in the sea where Reds gain their growth have been unfavorable for several years?

A factor easily overlooked in computing the Red salmon pack from the Alaska canning reports is the production of the freezerships, whose catches are processed on Puget Sound and under the Bureau of Commercial Fisheries' statistical system are not included in the Alaska pack figures. With 922,000 Reds frozen by the ships, roughly 75,000 cases should be added to the Alaska total to get an idea of the apparent U. S. supply.

Fishing Faster on Bristol Bay

These three pictures by Jim Kelly of Marine Construction & Design Co. show how Alaska Packers Association used its hydraulic boom mounted winches to speed the discharge of gillnet boats, and to relieve the fishermen of the heavy work of pitching fish onto the power scow. Top view shows the comparative easy job of loading the brailer. Middle shows how the scow loads from either side alternately. Lower photo of dumping brailer also shows the two hydraulic winches mounted on the boom.

Columbia River August Run Somewhat Stronger

The August run of Fall Chinooks to the Columbia River, for many years the volume mainstay of the fishery in that stream, appeared somewhat stronger at presstime than in a number of recent seasons. Beginning with 1952 the August run declined sharply from its former volume, with only a sharp spurt of short duration.

This season the higher level of fishing appeared to be sustained over a longer period; and when the records are finally in may be found to have overcome to some extent the deficit registered during the highly disappointing mid-summer season.

B. C. Sockeye Run Scant, With Pink Outlook Rosy

• Although Sockeye returns were disappointing, British Columbia fishermen and packers were trying to make the best of a difficult situation in mid-August. Some phases of the season were satisfactory, but there was nothing in the overall picture to justify jubilation.

The light Sockeye pack, about half normal expectations, was the dark spot, and no one came up with a plausible reason for the decline. Indications pointed to unfavaroble feed conditions in the ocean, because many of the Sockeyes caught were abnormally small. In Rivers Inlet 4½ lbs. per fish was not unusual, and 5 lbs. was the average in some other districts.

At August 7, the Sockeye pack for all districts totalled only 198,329 cases, and authorities predicted that it would not go much over 225,000 for the entire season, which would make it one of the lightest on record.

Fishermen lost a substantial volume of Sockeyes as a result of the strike which tied up the entire fleet during the first part of the season. Some northern runs were almost completely missed, although it is doubtful whether the packs would have been particularly large even if fishing had started earlier.

Although Sockeyes were disappointing, 1957 to presstime looked like a good Pink year, with the reported pack at presstime the best to date in any year since 1952. Moreover, the run of Pinks at that time was still rising in the southern waters of the province.

Numerous 3-yr. Sockeyes Brighten 1958 Prospects

• Sockeye run to the Fraser River was disappointing to the fishermen who had mounted a record concentration of gear—counting on the Pinks also, of course—but was sharp to the mark of the Sockeye Commission director's spring forecast, and was loaded with a record 20% of "jacks".

Principal anomaly of the season was the extension of the run far beyond the expected terminal point. However, this was lucky from the escapement standpoint, for it was from the late waves that a substantial percentage of the spawners was secured.

"Sound" is the characterization given the escapement. Not big, not scanty, and fairly distributed to key tributaries under conditions of timing expected to offer high productivity.

Commenting on the size of the individual fish in the run, Senator Thomas Reid, chairman of the Commission says:

• "The size of fish was expected to be small on the 1957 cycle but the fish were smaller than anticipated, currently 5.64 lbs. for the Canadian gill net catch and 5.86 for United States gill net catch. The difference in weight is due to the 5½" minimum mesh restriction for United States gill nets. The current purse seine average weight based on total numbers and total pounds landed for both Canada and the United States is 4.6 lbs. This average weight is being held down by a catch of over 20% 3-year-old males averaging three pounds or less. More three year old males are appearing to date than in 1953 preceding the 1954 Adams River run."

And he concludes:

• "Although the 1957 Fraser River Sockeye run is somewhat below the run of the brood year and the fish show evidence of very adverse ocean conditions during their marine existence the Fraser run of sockeye is far better than the runs of four year old Sockeye in the other Sockeye producing areas of the Pacific Coast region. For the first time since 1953 the number and condition of three-year-old fish is very favorable, indicating a possible improvement in the adverse ocean conditions affecting the Fraser Sockeye runs of the last three years."

The industry generally, and some scientists, see a direct correlation between the number of three-year-old males in the run of one year and the overall volume of the run in the succeeding year. The very large number of "jacks" in the 1957 run, projected against the migration a year from now, will provide an interesting test of the validity of this theory.

• Sharp eyes in the head of an alert biologist made an important contribution to the escapement to the upper Fraser.

Despite the murky waters of the Fraser, this man patrolling the river to study the run detected a dangerous block condition which was barring 100,000 Sockeyes from the Bridge River Rapids fishway. He phoned the warning headquarters at New Westminster and within 12 hours of discovery the block was relieved by blasting an emergency channel to the foot of the fishway. Another 12 hours and all 100,000 salmon had passed safely upstream.

State and Nation Study Salmon in Strait

Unique and unprecedented was the reconnaissance cruise undertaken early in August by representatives of Canada and the U. S. in the Strait of Juan de Fuca with a view to study problems relating to the Coho and Pink salmon runs in that area.

The Canadian fisheries patrol vessel *Laurier* with A. J. Whitmore, chief supervisor of fisheries in British Columbia, and Dr. A. H. Needler, director of the Pacific Biological Station at Nanaimo, on board, called at Neah Bay, and picked up Milo Moore, new director of Washington state fisheries department; Don Johnson, chief biologist, and Loyd Royal, director of the International Pacific Salmon Fisheries Commission.

The party then cruised out in the Strait to observe fishing operations and make an on-the-spot investigation of conditions that might arise from the granting of a request by U. S. fisheries interests for a high seas closure on Coho five miles east of San Juan. Exploratory work in connection with the Pink runs was also carried out and this will, of course, continue as a co-ordinated task by representatives of the two countries as a part of the six-year study required by protocol following ratification of the Pink salmon treaty.

J. D. Snell Dies

Justin Donald Snell, for many years fisheries accountant and office manager at Astoria for the Sanborn-Cutting Co. and the Barbey Packing Corporation, died there recently at the age of 76.

Japanese Reach New Peak

In 1957 Ocean Fishing Marked By Record Catch of Red Salmon

Japanese salmon fishing on the high eas reached a new peak of productivity during the 1957 season. The North Pacific fleet working the Aleutian Area attained its "target" of 87,000 metric tons of salmon by July 5, when the last mothership sailed or home.

First vessel to take her quota was ne *Mirajima Maru*, which topped-off ,157 metric tons and left for Japan uly 15; a full month earlier than n 1956.

The two fishing fleets licensed for ne Okhotsk Sea also found favorable shing and completed their quota of 3,000 tons by July 31.

The 405 fishing boats supplying the 4 motherships in the Aleutian area aught an average of 214.8 metric tons er boat, while the 56 fishing craft n the two Okhotsk fleets averages 32.1.

Data available to *Pacific Fisherman* t presstime gave no indication of the pecies composition of Japan's 100,000-ton catch.

The remarkable abundance and vailability of Reds during the early art of the fishing season gives rise o the expectation that the percentage f Reds in the catch exceeded previous ears.

Some observers in Japan believed that the Red catch for 1957 approximated 50% of the total, but whether this is counted on a numerical or tonnage basis is not apparent. In the early part of the season in the Aleutian area it is known that Red salmon made up fully 60% of the catch.

• Pre-season understanding in the Japanese-Soviet Fisheries Commission fixed the Japanese total 1957 salmon catch at 120,000 metric tons, with 20,000 tons of that total allocated to land-based gillnet vessels operating south of 48° north latitude. In view of the good fishing encountered by the Hokkaido-based gillnet fleet during the early season, Tokyo believed at press-time that this 20,000-ton objective had been attained without difficulty.

At the end of the season several of the Japanese motherships operating in the Aleutian Area were boarded by officers from Russian patrol boats, inspected, and their masters questioned.

• How to sell 1 million cases of canned Red salmon—the rough estimate of the 1957 Japanese pack—was furrowing brows in Tokyo at the end of August.

Shipments to the United States had begun, but no British import permits had yet arrived, and prospects for increase in the effective permits for U. K. shipment were not bright.

Estimated canned pack of Japanese salmon for 1957 was reported as:

Species	Full cases
Red	995,000
Pink	705,000
Chum	80,000
Silver	35,000
Tidbit	30,000
Total	1,845,000

The canned pack in 1956 slightly exceeded 2,000,000 cases. With a larger catch in 1957, it is apparent that a much larger part of this year's catch of Chums and Silvers was frozen or salted.

In 1956 the Chum pack was almost 500,000 cases. This year it is estimated at 80,000. The Silver canned pack estimate of 35,000 cases compares with an actual 1956 pack of 175,000 cases.

The Clamor Mounts—

Insistent clamor of disappointed merican fishermen blaming decline f their Red salmon catches on the creasing quantity of this species eing taken year after year in midacific by the Japanese is renewed in rger volume and harsher tones than er this season.

Moreover, it is being joined by Caadian complaints, for in British Columbia there is a larger body of opinn than before supporting this view the American producers. Some Cadian fishermen find the answer to e disappointing Sockeye pack of the ovince in the high seas fishery of e Japanese.

Next season, due to provide a Big ar run on the Fraser, will convince any it it fails to come up to expectations.

This fall the International North Pacific Fisheries Commission meets in Vancouver. It will be surprising if the murmurs and protests have died away by that time.

George Johansen, secretary-treasurer of the Alaska Fishermen's Union, and a thoughtful member of the Advisory Committee to the American Section of the Commission, wrote late in August:

"There are many American fishermen who now strongly believe that we have a very good program set up for conservation, but that it is working in favor of foreign operators and that the Americans who actually should benefit by the sacrifices they make obtain little if any benefits. In the face of the enormous catch of salmon made by the Japanese in their offshore fishery, as against the poor catch made by American fishermen, we find it difficult to disprove that these fishermen are not right in their statements."

Salmon Association Sets Convention for Victoria

The Association of Pacific Fisheries convention has been scheduled for October 10, 11 and 12 at the Empress Hotel, Victoria, B. C., according to announcement by Herald J. O'Neill, secretary.

Following the traditional pattern of full-scale conventions of the association, the first two days of the meeting will be devoted primarily to golf.

Freshly-dredged oysters come u on the **Ralph Hayes'** cyclone dig ging belt and are swept by powe ful streams which wash away mud debris and undersized oysters which are returned to the bay un harmed. The oysters then are trans ferred to the elevating conveyo seen on the left, whose operatio is pictured in detail on the opposit page.

How Coast's Mechanization Revives California Oystering

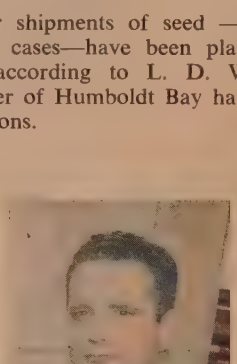
● California's oyster industry, which declined to insignificance 50 years ago, is well on its way to becoming again a real factor in the state's sea food business with the advent of Coast Oyster Co. With headquarters at South Bend, Wash., the company has oyster beds in Humboldt, Tomales, Drakes, and Bolinas Bays, Calif.

Headquarters for the Humboldt Bay operations of the company are in Eureka, where the firm has one of the largest oyster opening houses on the Coast, and also a cannery.

The past season was the company's first year of production in Humboldt Bay and, due to unusually warm air and water temperatures, the season lasted only nine months. In the future, the company hopes to enjoy a year-round production of about 250,000 gals. of shucked oysters annually.

Coast Oyster Co., in which two of the largest fishery companies in the world—Van Camp Sea Food Co., and British Columbia Packers, Ltd., —have large interests, started planting Japanese imported Pacific oyster seed in Humboldt Bay in 1955, on some 450 acres. At the present time the company has more than 1,000 acres of oyster beds on Humboldt Bay. Harvesting was started in April, 1956.

Four shipments of seed — about 28,000 cases—have been planted to date, according to L. D. Wallace, manager of Humboldt Bay harvesting operations.



Vern Hayes
president of Coast Oyster Co.

Mechanized Harvesting

● Operations of the Coast Oyste Co. are highly mechanized for oys tering. Prime harvesting tool is th hydraulic dredge *Ralph Hayes*, whic will dredge 2,000 bushels of oyster per tide. She is named for the brothe of Vern Hayes, president of Coas Oyster Co. Ralph Hayes is in charg of Coast's operations at Poulsbo Wash.

The dredge, built by Eureka Boile Works, has diesel-electric power fro a Caterpillar D-326 d. g. set for ha vesting, but is not self-propelled. Sh is of design patented by R. H. Baile Seattle, and is 74x24' with a 48' la der as the harvesting unit. Lowere to the oyster bottom the ladder carri a 36" Cyclone wire belt with 1" ope ings and the pipes through which tw 21" pumps deliver 20,000 gpm water through jets operating insi a steel hood 7' wide. The water j sweep the oysters from the mud inside the hood and deposit them the belt. Stones, bits of shell, m

Washed and Screened, oysters dredged by the **Ralph Hayes** ride up an elevating belt conveyor and are discharged by stacking conveyor to an oyster scow alongside for delivery to the cannery without interruption of the continuous harvesting operation.

and small oysters pass through the holes in the belt, with only large oysters and shells delivered to the dredge itself.

The dredge can work to a depth below surface of 15 to 18′. She is towed in a circle by one of the company's tugs, after being anchored with a 7,000-lb block of concrete. Towing operations start within 25′ of the anchor, and after each round, 3′ more of wire rope is let out until the dredge is working 500′ away from the anchor.

Oysters are loaded into wooden barges or the company's new 50x18′ self unloading steel barge, also built by the Eureka Boiler Works. The barge has a conveyor down the center, powered with a 7½-hp gas engine. When the loaded barge arrives at either of the two plants, the conveyor belt unloads the oysters onto a plant conveyor belt which takes them inside. On off-tides the barge is used for transplanting oysters to fattening beds.

The company also has 15 wooden barges 10x30′, two 30′ towboats, one powered with a GM-Detroit 3-71 diesel and the other with a Chrysler Crown, and a 55′ towboat powered with a Caterpillar diesel engine.

To supplement the work of the *Ralph Hayes* is the 16x50′ wooden drag dredge *Willapoint No.* 2, powered with two General Motors-Detroit 3-71 diesel engines. She is used also to clean up the corners where the *Ralph Hayes* is unable to operate due to the limitations of her "tether".

Discharging oysters at the Eureka plant of Coast Oyster Co., with shovellers transferring oysters to the boot of the adjustable conveyor resting on the barge. Oysters are washed en route before entering the plant. Conveyor rising to the left is removing shells to a hopper, with a truck loading beneath.

● Pests that have to be fought are red crab, star-fish, and sting rays. Rays up to 130-lbs in weight have been caught by Coast Oyster people in Humboldt Bay. The company has a permit from the Department of Fish & Game to drag in Humboldt Bay for rays, using two of their own tugs to drag with.

It has been found that fences are the best method of keeping rays out. Redwood stakes 10′ long, and set about a foot apart are used, and are kept up constantly.

In an effort to find out something about the habits of rays the company has tagged 500 of them, and have put a bounty of $10 on each of the tags to be returned to the California Department of Fish & Game. Rays only appear in Humboldt Bay from March to September, and officials of the company believe the tagging program will give more information about their migratory habits.

Fresh Oyster Opening

● At the fresh opening plant oysters are either unloaded automatically from the self-unloading steel barge or shoveled off manually on to a conveyor belt that takes them through a thorough washing and on into the plant where they are dumped into an opening bin 90′ long and 6′ wide, with stations for 60 openers, who use mostly Russell oyster knives in their work.

Oysters are evenly distributed to

Continuous dredging with the **Ralph Hayes.** Tug on the right is towing the dredge in a circle around its positioning anchor. Oysters are brought up on the inclined conveyor sloping up to the right, washed, and then transferred to the elevating conveyor rising to the left, from which they pass by stacker to a barge alongside. Barge at the left is loaded and ready to be towed to the plant.

the openers by a manually positioned traveling belt on which the oysters fall from the top of the bin.

Shucked oysters are put by the openers into 2-gal. stainless steel buckets. Shells are tossed into chutes at each station by the openers, and are taken via conveyor belt to a truck which hauls them to a shell crusher where they are crushed to the size of a 25c piece. The crushed shell is then loaded on to a barge, which is towed out into the bay and the crushed shells are washed off into the water by a powerful hose. Crushed shells make an excellent seed bed.

The bucket checker takes the shucked oysters to a grading room where they are deposited into two stainless steel washers, where they are thoroughly washed for five minutes in water agitated by air pressure.

From the washer the oysters are taken to the grading table and graded for size, small, medium, and large. Small and medium oysters are packed in 12-oz., 16-oz., or 16-oz.

American Can Co. "window top" tins, the top of which is composed of a circle of pliofilm, giving the customer an opportunity to see the contents, while resisting breakage and keeping shipping weight low.

The large oysters, and those cut in opening, are put in 10-gal. milk cans and trucked to the cannery four blocks away where oyster stew and whole oysters are canned.

At the fresh opening plant the cans of fresh oysters are put in boxes, and iced with flake ice from a North Star flake ice machine, and stored in a cold room refrigerated by a Brunner ice machine. Daily shipments of oysters under refrigeration are made. The fresh oysters are sold through the sales agencies of British Columbia Packers, Ltd., of which the Rupert Fish Co. is principal American subsidiary.

Canning Operation

● At the cannery shell oysters are unloaded in the same manner as at the fresh oyster plant. Washed shell oysters are deposited by conveyor on the first 35′ section of the Cyclone steel mesh steaming - shucking belt, 105′ in length. Approximately 100 bushels of oysters are loaded at a charge. The belt then advances 35′, which takes the oysters into the steam box where they are steamed at 212° for 25 minutes. By that time the 26 openers will have cleared the third section of the belt and the first section will have been reloaded. The belt is again advanced 35′ and the shuckers have a new charge of 100 bushels of steamed oysters on which to work, while the first section is ready for reloading.

Upper—Randolph Sherwood, on the left, is manager of the Coast Oyster Co., fresh oyster plant at Eureka. Right is F. M. Douglas, general manager at Eureka.

Lower—L. D. Wallace, manager of Coast's Humboldt oyster beds, on the left, with C. D. "Dude" Little, his assistant, and Bill Werblow, cannery manager.

From the openers the shucked oysters go into a washer, where they are washed with air agitation, and thence to a rubber belt device where they are graded for size and quality before going to a Food Machinery hand-pack filling machine to be packed in American Can Co. 1-lb tall, 10-oz., and 7¾-oz. cans. Whole canned oysters are sold under the *Willapoint* and *Chicken of the Sea* brands.

After the cans go through an American Can Co. sealing machine they are placed in a four-basket Reid Boiler Works retort. After retorting they are cooled with a water sprinkling system, labelled on a Burt labelling machine, and packed in Fibreboard shipping cartons. All cartons contain 24 units.

● Only fresh-opened oysters are used for oyster stew, these being the excess not required to fill orders for fresh shipping, together with cut and outsize specimens from the grading belt. They are washed in an air-agitated traveling washer and are put through a stainless steel chute which feeds them to a bread slicing machine,

making them into ½-in. cuts.

The cut oysters are caught in 10-gal. milk cans and deposited in two 90-gal. stainless steel steam-jacketed kettles, where they are blanched and seasoned in light brine.

The nectar is drawn by pump through a heat-exchanger which cools it to approximately 550 F. The cooking kettles are refilled to cool the blanched oyster meat, which is then withdrawn from the bottom of the cooker, strained, washed and stored in cold storage in 10-gal milk cans. The cold storage room is 20x32' and the refrigeration machine is a 5-hp Freon unit.

When the plant is ready to can oyster stew the meat is deposited in a Food Machinery Corp. hand-pack filling machine to be put in 8 and 10-oz. American Can Co. cans. From the hand-pack machine the cans travel to a filling machine, where they are filled with a mixture of nectar, and 3.8 homogenized whole milk.

The milk used in preparing oyster stew is kept in a 1,000-gal. stainless steel refrigerated tank. From the milk filling machine the cans travel to a butter machine, where a measured portion of Grade A melted butter is injected into each can. From thence the cans go through the same process as the cans of whole oysters.

The company also packs a 22-lb. quick-frozen oyster block, 2x11x18". Oysters are put in aluminum pans the size of blocks and quick frozen at an adjoining ice plant. The blocks are removed from the pans and stored in cold storage in neoprene lined kraft bags.

Distributing conveyor, below, which receives oysters from shucking plant intake belt, above, and drops them into the shuckers' supply hopper below as it is positioned by an attendant.

Fresh oysters being hand-filled into plastic-top tins. Oysters are washed in the cylindrical stainless steel washers in the background. Sizes not on order for fresh sale go into canned oyster stew.

Marketing of Products

● Marketing of all Coast Oyster Co. products, including those of its operations in Washington as well as in California, are divided between the British Columbia Packers, Ltd., organization and that of the Van Camp Sea Food Co., with the division falling between canned and other products.

British Columbia Packers, Ltd., market the fresh oysters in 12-oz. glass jars, and the window topped cans. They also sell all fresh and frozen oyster products, including a 10-oz. pack of oysters quick-frozen in lithographed cans. The 22-lb. oyster blocks are sliced into sticks, breaded and packaged as oyster sticks. Oyster burgers and oyster tid bits will also be manufactured by British Columbia Packers, Ltd. at major United States distribution centers.

Van Camp Sea Foods, Inc. sells the heat processed items, including whole canned oysters, oyster stew, and possibly a clam chowder and minced clam item. The Coast Oyster Co. at Eureka is experimenting with the culture of Japanese white clams in Humboldt Bay, and if the experiments prove successful, the clam items mentioned above will be packed and marketed.

Coast and Its People

A wealth of experience and know-how is provided in the management and supervisory personnel of Coast Oyster Co. Vern Hayes, president of the company, has been in the oyster business all of his life, starting with his father Jesse Hayes, a pioneer Pacific Northwest oysterman at Bay City, Ore. Vern Hayes organized Coast Oyster Co. in 1945 and has developed it into one of the largest oyster producing companies in the world.

F. M. Douglas, general manager in charge of Eureka operations, went to work for Coast Oyster Co. in 1950, operating the Allyn plant on Puget Sound. From there he went to the management of the cannery, opening house and oyster beds at South Bend, Wash.; thence to Eureka.

L. D. Wallace, manager of Humboldt Bay oyster beds, has been with Coast for four years. Previous to then he was with a number of oyster companies at Willapa Harbor.

Randolph Sherwood, manager of the fresh oyster plant in Eureka, is another veteran oysterman. He managed Coast's opening house at Willapa Harbor before coming to Eureka two years ago.

Bill Werblow, in charge of the Eureka canning plant, has spent most of his career in the canning business on Humboldt Bay, and is also well known in the fresh fish business.

C. D. "Dude" Little, assistant to Mr. Wallace, also came to Eureka from Coast's operations at Willapa Harbor. He has been with the company since 1951, and has had oyster beds of his own.

Ralph Johnson who runs the hydraulic oyster dredge *Ralph Hayes*, has been with Coast Oyster Co. for four years. He used to have the Johnson Oyster Co. at Willapa Harbor, which was purchased by Coast.

The company employs at Eureka about 120 people when it is operating at full capacity.

FISHING PRESSURE

An International Problem

• Exceptional significance attaches to the somewhat obscure action of the International Pacific Salmon Fisheries Commission in calling upon the governments of Canada and the State of Washington to discuss with it the problems posed by a fishing fleet growing in numbers and individual effectiveness, and the effect of such growth on the fair and effective management of the Sockeye and Pink salmon resource shared by the two nations.

This action was taken by the commission as it wrestled with the complicated responsibility of managing the Sockeye and Pink salmon fisheries in a way which would divide equally between the two countries the largest catch permissible on a sustained yield basis, while providing escapement, control and protection adequate for upbuilding of the resource.

The commission announced its action in these words:

"In considering the problems of regulating both the Pink and Sockeye fisheries . . . the commission was impressed by the need for a reassessment of the growing and expanding fishing fleet; its increased efficiency in both countries, and its effect on equitable and proper management of both Sockeye and Pink salmon populations. Since any satisfactory solution of the problem involves national policy and action outside the terms of reference of the commission, the commission approved an action calling for full discussion of the problem with the governments of Canada and the State of Washington before the 1958 season."

It should be noted that the commission mentions that the problem "involves national policy"; but that it proposes discussion with the State of Washington. Practical necessity for dealing at the state level so far as possible in matters of the boundary fisheries of the United States and Canada was demonstrated with singular force in the 1957 closure of salmon net fishing on the high seas, which required concurrent action by the United States, Canada, Washington, Oregon and California.

• The commission gave no indication of its thinking, either as to what needs doing or how it should be done.

Obviously, however, it is finding that the unceasing growth of the fishing fleet, and the increasing effectiveness of its individual components, makes the task of protecting the future of the resource uncertain and hazardous.

To seek control wholly by limit on fishing time creates an uneconomic condition, and at the same time makes it virtually impossible for the commission to discharge the responsibility laid upon it for dividing the annual catch as equally as possible between the two nations.

• That the commission is in deadly earnest is certain. That serious efforts to cope with the problem will be launched before the 1958 season—expected to attract more gear than ever before—is not to be doubted.

The commission has support from many in the industry—and most of all from the fishermen themselves, who see in continued unbridled multiplication of gear economic ruin for themselves and the risk of impairing the resource.

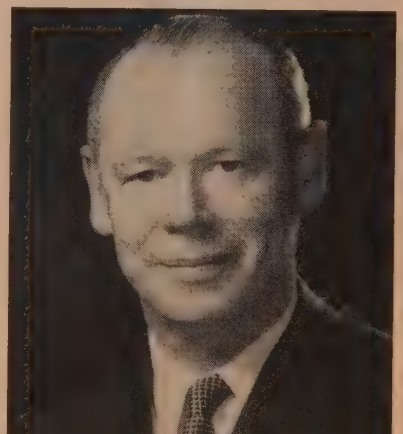
Wilbur-Ellis Promotes Matson to Executive Post

Raymond B. Mattson, a 34-year veteran with Wilbur-Ellis Co., world-wide sea products factors, has been elected executive vice-president of the company.

He will make his offices at San Francisco headquarters of the company, moving there from Seattle, where he has been branch manager for several years. Mr. Mattson joined the company in San Francisco in 1923 and in 1925 was sent to Vancouver, B. C., to open an office for the sale of Canadian pilchard and herring meal and oil. Thereafter he served at various locations, going to Seattle, in 1939.

While in the Pacific Northwest Mr. Mattson established the Portland office and has developed the company's business throughout the states of Washington, Oregon, and Idaho.

Ernest G. Thorson, manager of the Vancouver, B. C. branch, has been promoted to take Mr. Mattson's post in Seattle. Mr. Thorson has been with the company since 1945. His place in Vancouver, B. C. has been filled by the appointment of Ted Dersch, promoted from the Los Angeles office.



R. B. Matson, advanced to executive vice president of Wilbur-Ellis Company after managing its Seattle office for many years.

Van Camp Makes Shifts At Executive Level

Gilbert Van Camp Jr. moved up to president of the Van Camp Sea Food Co., Inc., on Terminal Island last month, assuming the duties of his father, Gilbert Van Camp, who became chairman of the board.

Glenn H. Copeland, former vice president in charge of operations for Van Camp, succeeds Mr. Van Camp Jr. as executive vice president.

W. B. Dugan, until recently advertising director for the Van Camp company, was made director of sales following Malcolm Goldie's resignation from the firm.

Mr. Van Camp Jr. joined the company in 1945 after four years service with the U. S. Coast Guard. Mr. Copeland joined the firm in 1936 at its San Diego plant.

Gilbert Van Camp Sr. and his father founded the company in 1914. It now is one of the largest tuna packing companies in the world.

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Nation-wide offices and services listed on back of this page.

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PACIFIC Fisherman's NEWS

SEPTEMBER 1957

Skimpy Fleet Forces Halibut Fishing to Late Sept. Close

Halibut operations in Area 3A will xtend beyond the middle of Septem-er, the International Pacific Halibut ommission staff told the fleet Au-ust 20. At that time it forecast that ie 30,000,000-lb. catch limit would ot be attained before Sept. 16—and erhaps not then. This will be latest losure since 1945.

The announcement was made in or-er that the fleet might know it would ave time for another full trip. At the me of the announcement landings rom the area were slightly above 24,-00,000 lbs.

Protraction of the Area 3A season ar beyond the original expectations aces directly to the sharp reduction the number of vessels, particularly mericans, operating in the Westward rea.

Reasons for this reduction are cited y F. Heward Bell, assistant director f the Halibut Commission, as:

1. Generally low prices for halibut.
2. *Relatively* low halibut prices as gainst those available in fishing her-ng, Albacore, sablefish, king crab, c.
3. Strong general charter market r salmon cannery tender work.
4. Halibut price range between rts, tending to encourage deliveries railhead ports, thus slowing produc-n.
5. Diversions to salmon fishing re-ilting from overlapping produced by the delay in halibut closure.
6. Declining availability of halibut in Area 3A after the first two trips, which yielded very well. Trips 3 and 4, however, found fishing poor, although at presstime a pick-up was evident.

• The Area 2 second season produced only 4,204,000 lbs., Americans catching 2,228,000 and the Canadians 1,976,000. Total compared poorly with the 7,427,000 lbs. taken in 1956.

Here again the attraction of other fisheries was ascribed as the reason for decline, although the Goose Island area in southern Hecate Strait offered nothing better than poor fishing. Central and Upper Hecate Strait, and the Southeast Alaska banks generally, showed high availability in the second local season.

In short, the fish were there; but it was the boats that were scarce.

• With only 300,000 lbs. taken up to the start of the last week in August from Area 3B it began to be apparent that the yield from these grounds would not amount to much. This may be expected to result in renewal of the Commission's split-season proposal which would sharply stimulate fishing in Area 3B, and thus provide a practical test of the scientist's belief that the stock in this far Westward area actually is a component part of the halibut population fished heavily in the nearer waters of Area 3A.

Spasmodic Tuna Catches Taken Off Ore. Coast

• Albacore fishing in Pacific Northwest waters continued spasmodic through most of August—fish enough to keep a fleet fishing, but not enough to yield any noteworthy shares.

Most of the fish were going into Astoria, direct or by truck from Oregon coast points. For the first month of fishing recorded landings there were not much above 150,000 lbs.

It is interesting to note that in the same period tuna imports through the Astoria custom house from Japan totalled 7,376,000 lbs., all Albacore except for 1,166,000 lbs. of Yellowfin and Skipjack.

• Water along the north coast was exceptionally warm and conditions were considered by the Albacore fishermen to be prime for tuna. They found fish widespread, but not inclined to bite. Catches were made from the exceptions, for now and then a boat would encounter a pod of fish from which it would secure quite a number, only to have the next school yield nothing.

To presstime the north coast Albacore season had failed to live up to its early promise.

However, there was still a good chance that September would prove productive and a good many of the boats were expected to stay with their jig gear as long as there was a chance of making it pay off.

alph Madruga Injured y Crazed Crewman

Ralph Madruga, well-known San iego tunaboat skipper, was attacked nd severely injured by a crazed crew-an wielding a claw hammer as their ipper *American Lady* cruised off the hetis Banks 600 miles south of San iego last month.

He suffered head cuts, bruises and ncussion before other members of the crew could subdue the attacker. Another tunaboat, the *Sun Venus*, fishing in the same area, came alongside and gave assistance.

A U. S. Coast Guard plane brought Capt. Madruga and his assailant to San Diego. The attacker was restrained with a strait jacket.

Edward Silva, brother-in-law of Capt. Madruga, and co-owner of the *American Lady*, said that the vessel would continue to fish under command of its first mate.

1958 Alaska Fisheries Regulations Hearings

Hearings on the Alaska Fishery Regulations proposed for 1958 will be held in cities of the territory during October on dates as follows:

Dillingham, 7; Anchorage, 9; Homer, 10; Kodiak, 12; Cordova, 14; Juneau, 21; Sitka, 22; Yakutat, 23; Ketchikan, 24; Petersburg, 25.

Final hearings will be held in Seattle Nov. 13, 14 and 15.

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High-Powered Shrimper

Shepherd Marine, San Diego branch, reports that a Caterpillar D-13000 diesel is being installed in a shrimp trawler owned by Industries Del Mar, S. A., at Guaymas, Mexico. Installation is being supervised by Frank Chalupnit, Shepherd Marine's San Diego manager, who also made the sale.

Salvatore Padre, San Francisco trawler owned and operated by Sal Piazza, has been chartered to United Shellfish Co., San Francisco, through the office of Dan Bohne & Son, to work as a pick up boat for salmon, working out of Pt. Reyes.

Delayed Clippers Crowd San Diego Facilities

Numerous tuna clippers lay at dockside in San Diego last month waiting to unload their fish and undergoing repairs. Among those at the Harbor Boat and Yacht Co. were the *Coimbra, St. Mathews, Excalibur, Seafarer, Historic, Antoinette B., Intrepid, Gem of the Sea* and the *Southern Queen.* Empty and in for repairs were the *Mayflower, Marie Louise* and the *Lone Wolf.* The *Mayflower* had International bottom paints applied to her hull. The *Antoinette B.* will have a complete Metalast bottom treatment, which includes sand blasting, five coats of anti-corrosive and two coats of antifouling paint.

At San Diego Marine Construction Co. the *Southern Seas* had installed a six-cyl., 400-hp. Enterprise diesel engine. At the same yard recently for bottom work and routine repairs were the clippers *White Seas, Jo-Marie, Favorite, Liberty, Queen Mary* and the *Missouri.*

Various tuna clippers have put into Campbell Machine, Inc. for repairs. There the *South Seas* had stern planking renewed and her bottom sandblasted and repainted. Also repainted were the *Sun Dora, United Victory* and the *Mariner.* The *Saratoga* underwent minor engine repairs. Other boats in this yard for minor repairs while waiting to unload were the *Frances Marie, City of San Francisco, Santa Anita, North America* and *American Enterprise.*

"Northern Light" Sold

The trawler *Northern Light,* owned by the late Ted Aaker, well known Fort Bragg fisherman, has been sold by Mrs. Aaker to the three Urbani brothers, who crewed for Ted—Rex, Harry, and Angelo.

The deck house has been remodeled, and a new Northern Dragger winch has been installed. She is fishing for A. Paladine, Inc., out of Noyo Harbor, Fort Bragg.

Tunamen's Wives Rally To Aid Industry's Fight

The Tuna Fishermen's Wives Emergency Committee and the San Diego Harbor Grange sponsored a mass meeting at S. E. S. Hall last month to inform fishermen, their wives and others whose livelihoods depend on the tuna industry of present conditions, future outlook and the efforts various organizations are making "to save the American tuna producer from oblivion."

Guest speakers encouraged those attending to write to their congressmen telling of their plight and requesting congressional action in setting a quota on imports of tuna into this country.

Speakers were Harold F. Cary, general manager of the American Tunaboat Association; M. D. Stewart, manager of the Five Star Fish and Cold Storage Fishermen's Co-op; Dr. W. M. Chapman, research director for the American Tunaboat Association; L. Balinger, Cannery Workers and Fishermen's Union and Mrs. George Zeluff, legislative chairman for both sponsoring groups.

Geo. Ward Buys Store At Moss Landing

George Ward, former owner of the trollers *Alice B.* and *Castaway,* has purchased the marine store at Moss Landing, Calif., from Don Woodward. Future plans for the store include doubling of the floor area and addition of a much needed mechanical service shop including engine, electrical repairs and welding.

Mr. Ward will continue to carry the same lines, including Woolsey and American Marine paint, Wall rope, McMahon and Katch-mor spoons, Lew Morrison flashers and plugs, Wicks tarred hemp, Kolstrand gear, Kuhl's assorted products and Wood Freeman Metal Marine Pilot.

The boat brokerage office and Standard Oil dock will still be operated by Don Woodward and son Dick.

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Skipper Albert Anderson of the M/V Midway says he's never had any trouble with his 165 h.p. Gray diesel in six years of using RPM DELO Oil and Standard's diesel fuel. The 10-year old engine still has all original bearings and, at time of last overhaul, Mr. Anderson reports rings were clear and free..."the engine was clean and in very good condition."

The Midway ranges out of Seattle as far south as Mexico (for tuna), and north to Alaska (after halibut). After six years of such runs on Standard's diesel fuel, Mr. Anderson says, "The diesel fuel always gives me full power and it's so clean I change strainers just three times a year."

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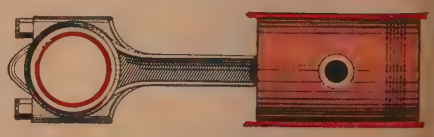

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How Practical Operators Find Profit In Conserving Fresh Salmon Quality

● Use of refrigerated sea water for holding fish in prime condition before processing has scored real success in the North Pacific, with sea water chilling units operating on cannery docks, packers, tenders, seiners and trollers from Oregon to Alaska.

Benefits of the chilling method are numerous. Melting ice and slack fishing periods no longer are problems. Boats equipped with tanks and sea water chilling machinery can stay on the fishing ground until they have a full load.

In cannery operation sea water chilling can afford large cost savings by enabling a plant to handle fish at the peak of the run safely, but without incurring the expense of equipping and manning additional canning lines on the chance that they will be needed, and then perhaps for only a few days.

Fish chilled in sea water come out of the tanks in prime condition days later, round and firm as when caught. No flattening or denting occurs. No weight of fish is lost, since there is no crushing from the weight of ice and fish in layers above.

Commenting on his firm's use of refrigerated sea water in the tender *Dorothea,* Harry Tallman, vice president of the Seldovia Bay Packing Co., says, "This is the best there is. We could safely hold fish for two weeks if we had to."

Seldovia Bay Operation

● The 84x24-foot twin-screw power scow *Dorothea* was outfitted in 1955 as a combination sea - water - chilled and "dry" storage refrigerated tender.

Equipped with Worthington refrigeration machinery by the Puget Sound Engineering Co. and five steel tanks by Flohr & Co., both of Seattle, the *Dorothea* can chill and hold 25,000 to 30,000 average-sized Red salmon, or 40,000 Pink salmon.

Her five steel tanks are lined with refrigerating coils that chill sea water to 31°F. while operating on salmon for canning; and then can be pulled down to 0°F. dry storage for frozen fish, and particularly for transporting frozen halibut from the company's cold storage to Seattle. Capacity of these tanks on the *Dorothea* approximated 4,000 cu. ft. Her refrigeration machinery is housed in the engine space aft.

Vertical steel elevators raise the fish from deck level to be distributed through portable chutes to the hatches of the tanks. Each tank has a watertight gate through which in unloading fish sluice out practically automatically.

The water is kept at 31°F. during the run to the fishing grounds. As fish are taken, they quickly are brought down in temperature to just above freezing.

Who Builds Chilling Units For Sea Water Refrigeration?

● The Refrigeration Engineering Company of Seattle has designed and developed five sea-water-chilling package units. They range in size from the Refco SWC 100, capable of chilling 8,000 lbs. of fish to 30°F., to the Refco SWC 1500, their largest unit, which chills up to 140,000 lbs. of fish to 30°. The smallest unit is designed for trollers and gill-netters, the largest unit for shore installations at cannery sites and for packers and tenders. Intermediate sizes may be used ashore or afloat, depending upon the user's needs. All employ York compressors.

A typical smaller Refco installation is that in the troller *Sally*. This unit, a Refco SWC 200, is designed to chill 18,000 lbs. of fish. It measures 42" long, 30" wide and 35" high and is powered by Sundstrand hydraulic drive off the main engine.

Large Refco SWC 1500 package units now in use include one in the Whiz Fish Products Co's all-steel carrier *Snow Mist;* a Libby McNeill & Libby towed scow in Bristol Bay; Emard Packing Co.'s shore installation at its cannery at Anchorage; American Packing Co.'s shore installation at Anacortes, Wash.; Alaska Year Round Cannery's unit at Seldovia. Other units include Haines Packing Co.'s Refco SWC 1000 at Haines, Alaska; Port Chatham Packing Co.'s SWC 1000 unit at Port Chatham; and Resurrection Bay Cannery's SWC 500 at Resurrection Bay.

Refco package units now being installed include a large SWC 1500 for a Libby towed scow, two units on scows for Pacific American Fisheries, two for scows owned by the Washington Fish and Oyster Co. and one for the Egegik Packing Co. at its cannery at Egegik, Alaska.

In addition to the above larger chilling units, Refrigeration Engineering Co. also is installing three smaller units on trollers this season.

Refco machines employ heat exchangers mounted directly on the units. This method eliminates perimeter piping in the fish tanks. Thus chilled, the sea water continuously circulates through the tanks and back to the heat exchanger for temperature reduction.

Refco's electrically driven model automatically maintains a steady 30° F. The gas-engine-driven model automatically shuts off the engine when correct temperature is attained. When the temperature starts to rise, a bell rings and the engine is re-started manually. Although automatically operated clutches may be used, the manual method appears to have advantages in its simplicity.

All the smaller units may be driven hydraulically as well as by auxiliary gas or electric motors for automatic operation.

Large Refco SWC 1500 chillers completely exchange water in the fish tanks every 10 minutes. These tanks, usually two in number, averaging 17' in diameter and 6' 6" high, hold about 70,000 pounds of fish each, or 8,500 gallons of water.

● W. E. Stone & Co.'s Wesco Port-A-Chiller, also designed and built especially for the fishing industry, is applicable to barges, trollers, tenders, shore tanks and fish bins in canneries.

Port - A - Chiller package units are available with electric, hydraulic or gas engine drive. Complete with gas engine, the Port-A-Chiller measures 64½" long, 30" and 27". These units also are available with either air-

cooled or water - cooled refrigerant condensers.

The result of two years' engineering, the Port-A-Chiller was developed under the direction of Walter H. Shook, sales engineer, and William C. Stone, president of the firm. Larger units are presently on the drawing boards for presentation next year. A larger, specially designed unit was being installed in the Kadiak Fisheries' tender *Jaguar* in the Spring of 1957.

Port - A - Chillers are distinctive in that no hook-up of pipes is necessary. The user merely puts the suction hose over the side, the outlet hose into the fish tank, and starts the engine. When the tank is full, the suction hose is put into the fish tank near the surface of the water, the outlet hose from the chiller is put at the bottom. This simple system accomplishes the necessary circulation at a rate of 50 gpm.

As powered by the 8-hp., 1-cyl., air-cooled gas engine and refrigerated with Freon, the Port-A-Chiller refrigerates 2,500 to 3,000 pounds of fish to 29-30°F. The engine, equipped with disengaging clutch for easy starting, runs constantly, giving continuous sea water circulation. A special automatic temperature control on the unit was designed by W. E. Stone & Co.

Extensive galvanizing protects the Port - A - Chiller against corrosion by salt water and spray. The tank in which sea water is cooled is completely galvanized inside and out, as is the external surface of refrigerating coils in the chiller tank and all seams and joints necessary in its construction. This tank is easily cleaned by removing the top and hosing the interior.

Convenient lift hooks are welded to the unit's frame for easy installation and portability. Galvanized channel iron skids are pre-drilled for bolting to deck or platform.

When powered by gas engine, the Port - A - Chiller is equipped with a built-in gas tank. The fuel pump, however, will bring gasoline from a larger central tank if desired.

Freon or ammonia refrigerants are optional. Wesco's Freon unit employs a Curtis compressor with 100% copper refrigerant condenser. The ammonia units use either Vilter or Baker compressors, as preferred by the customer. For larger installations W. E. Stone & Co. recommends ammonia refrigerant, which is readily adapted to use in boats or ashore.

The Stone company reports that the Wakefield Fisheries Co. trawlers *Shelikof* and *Foremost* will soon have large Wesco sea water chillers installed, along with refrigerating pipes in their dry storage areas.

● Puget Sound Engineering Co. designs and builds refrigeration and sea water chilling equipment to its customers' requirements. In 1955 it supplied the Kenai Packers' tender *Tolstoi* with two dry freezing compartments and a sea water chilling tank of 12,000 cu. ft. capacity.

This tank is compartmented and removable from the hold of the ship. At the end of the fishing season, the *Tolstoi* leaves the chilling tank at its company's facilities in Kenai.

Also in 1955, Puget Sound Engineering Co. lined the steel tanks of Seldovia Bay Packing Co.'s *Dorothea* with refrigerating coils, as mentioned earlier. Other installations by the firm include crushed ice plants for canneries' tenders, which combine crushed ice with sea water to achieve temperatures needed to hold fish in good condition.

● The Electromatic Sales and Service Co., Seattle, in 1955 designed and built an experimental sea water chiller for the troller *Winsome* and at present is conducting experimental work on similar chillers. This company also has made several chilling installations for Alaskan canneries. It pioneered the system of prolonging the life of ice for boats by means of cold plates, with refrigeration machinery driven from the main engine or by auxiliary.

● Rice & McIntosh Refrigeration Ltd. of Vancouver, B. C., early this year announced that it is producing package sea water chilling units for use in trollers, seiners, packers and canneries.

The troller-size chiller handles 6,000 lbs. of fish at 30°F. It easily can be converted to handle 11,000 lbs., it is said.

Powered directly off the main engine or by hydraulic means, the Rice & McIntosh unit weighs 300 lbs., is four feet long and 1½ feet high.

Rice & McIntosh acted as refrigeration consultants to the Fisheries Research Board of Canada during its early investigations into the sea water chilling method for holding fish.

Judging from the numbers of refrigeration firms engaged in manufacturing chillers and from the many satisfied users, it appears that the sea water chilling method is here to stay. And in addition to the benefits described in this and a previous article, it also promises to open up new avenues to the consumer market.

Says E. B. Genung, Jr. of Refrigeration Engineering Co., "So successful are these sea water chilling machines for holding fish in prime condition for long periods, that we expect to see trucks and railroad tankers similarly fitted out in the near future for distributing fresh fish from dockside to consumers throughout the country."

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— Ralph Visted, Seattle, Washington

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Western, one of the colorful, gallant, safe-in-any-sea schooners which were for so long the backbone of the Seattle halibut fleet, recently took unto herself a new engine, a Caterpillar D42, and with it the ability to fish for another generation. (She was built in 1924.) Below are her owners, left to right: Ed Flones, George Eliasen and Olaf Bordick.

Burris Boat Damaged

Trolling boat *Frances*, a 40-footer of the Seattle fleet owned by E. R. Burris, sustained considerable damage early in May as result of a flash fire which broke out at the Salmon Bay Fishermen's Terminal, Seattle, when an engine backfire ignited spilled gasoline.

Mr. Burris was preparing to take the vessel to Alaska.

"HALIBALOO"—Wives' Way Of Promoting Fish

Halibut Fishermen's Wives' Association struck a new note in fish product promotion at the annual Seattle Seafair in August with "Halibaloo", and took steps to assure that the enterprise would be repeated in future years as a consistent means of adding to the popularity of halibut.

With Mrs. Gerald Wentzell as chairman and Mrs. Ole Strom as assistant. "Halibaloo" was sponsored by the association as its participation in the accumulation of activities which comprises the Seafair. Moreover, it was designed to serve as the primary participation of the Ballard community in the civic enterprise.

So successful was the event that steps were taken to form Halibaloo, Inc., as a means of carrying on the enterprise from year-to-year, and of planning and preparing for it.

The Halibaloo program began with a "small fry" parade, followed by a halibut barbecue, a program of folk dancing, and a street-dancing finale.

One of the specific purposes of the Halibut Wives was to demonstrate the inherent suitability of halibut for cooking by barbecue and other modern means of luxury cooking.

Veteran Vessel Owner Passes in Vancouver

Captain Robert Hobbs, who died recently in Vancouver, B. C., was one of the charter members of the Fishing Vessel Owners Association.

Of the original group the following eight are still active members: Captain Charles Clarke, president of the association; Captain C. Herje, Captain N. Jurincic, Captain O. Martinsen, Captain A. Prince, Captain J. Stenland and Captain L. Soleway.

Susan Jean, 48′ steel troller owned by Conrad Negstad, Portland, was sold to Ed Robinson, Richmond, through Don Woodward Jr., Oakland ship broker.

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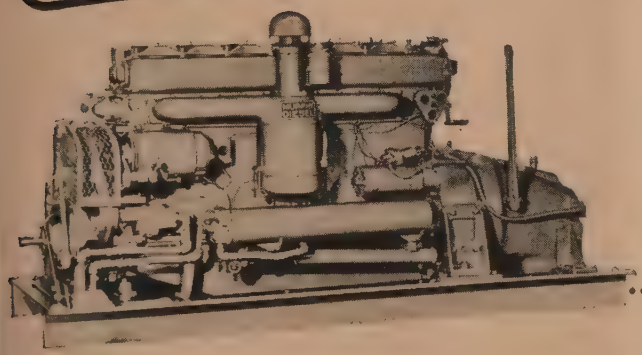

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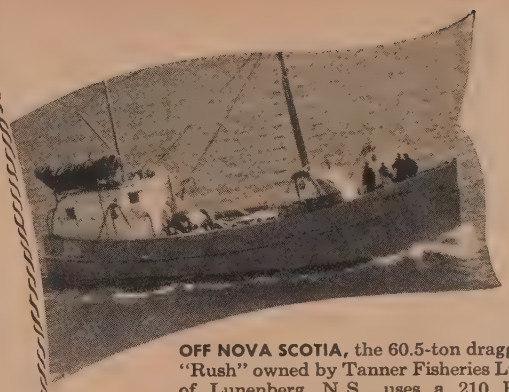
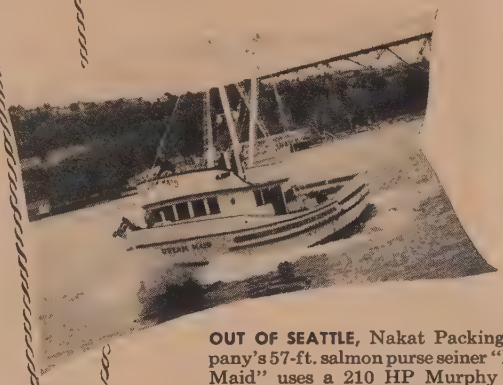
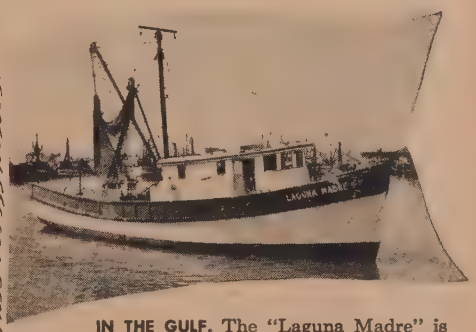


OFF NOVA SCOTIA, the 60.5-ton dragger "Rush" owned by Tanner Fisheries Ltd. of Lunenberg, N.S., uses a 210 HP Murphy Diesel with front power take-off.



OUT OF SEATTLE, Nakat Packing Company's 57-ft. salmon purse seiner "Dream Maid" uses a 210 HP Murphy Diesel engine for economical power.



IN THE GULF. The "Laguna Madre" is one of a fleet of ten trawlers owned by Independent Fish Company of Brownsville, Texas, which use Murphy Diesel engines for dependable, trouble-free sea-going power.

EAST COAST SHRIMPING. The Hatteras trawler "Miss Edisto" is powered by a 128 HP Murphy Diesel for profitable shrimping operations in Florida shrimping grounds. Edisto Marine Service, of Edisto Beach, S.C., owns the trawler.

SCOPE and SOUNDER

Monthly digest of present-day pioneering methods and equipment in world fisheries.

By PETRALE

Draggers and Buyers Eye Pink Shrimp For Profits

• Petrale has watched with the keenest interest the growth of the shrimp fishery in the sea off Grays Harbor, Wash., following the successful exploratory work of the USFWS M/V *John N. Cobb*.

The evolution of the fishery has already passed from the hand picking method to mechanical peelers, from relatively small, inefficient nets to the Gulf Coast trawl, and from a limited fresh market to canning. Fishermen are currently experimenting with better shipboard sorters and more efficient methods of handling and caring for the catch. Interest in shrimp is keen and numerous fish processors are keeping tab on the development of the fishery. Already several other processors besides Kaakinen Fish Co. have started installation of shrimp picking equipment in the Grays Harbor and Willapa areas. Others are reported interested at Astoria.

If shrimping proves a successful operation for fishermen and producer, the number of trawlers engaged in the fishery adjacent to the Washington coast may increase four or five-fold. Which brings up an important question: How much shrimp? The question of what fishing intensity and what quantity of shrimp the banks now fished off Grays Harbor will support has no categoric answer. That a heavy fishing on fish or shellfish can materially reduce the numbers available to the fishery is a proven fact.

The present shrimp operation is limited both geographically and in time by a three-day operational limit. This restriction necessarily confines most of the activities to waters close to the Grays Harbor area. When quantities of shrimp close to the bay area become reduced to a level where continued fishing is not profitable, fishermen will be forced to make longer runs. Obviously, the longer the run the shorter the time left for fishing. A rapid increase in fishing intensity in the Grays Harbor region could reduce stock levels to a point where fishermen would conceivably be forced to the limit of their three-day operational period.

Commercial quantities of ocean pinks are known to occur off the California and Oregon coasts as well as off Washington, and have recently been found in a wide area through the Gulf of Alaska by U. S. Fish and Wildlife Service explorations carried out by the *Tordenskjold*. Species of pinks are known to have a wide geographic range and undoubtedly occur in commercial numbers off Vancouver Island. There are considerable areas in the "magic" depth range of 50 to 80 fathoms that have not been prospected.

The problem of a secure and reliable source of shrimp for a major industry would not appear to be limited to the present local area of operations, but would require a fleet having the mobility and facilities to take advantage of the available resource. A number of the present fishermen are aware that the three-day operational period shackles both the fisherman and the processor. The answer seems to lie in refrigeration which will allow greater fishing time. Chilled seawater or brine would seem to offer the most promise along these lines. Knute Franklin aboard the *Shirley Lee* has given this considerable thought and has started some experiments with refrigerated seawater. If this operation proves successful and additional days can be gained for fishing, the promise of a sustained catch seems more secure. Chilled seawater would also offer the advantage of a more practical method of unloading the catch by means of pumping.

Plus-Values in Fish Oils Showing Worth

• The question of how good are synthetic vitamins has been tossed about a lot. Fishermen have had hopes that the "test tube product" would prove unsatisfactory thus produce a revival of the fish oil industry for vitamin A. The U. S. Fish and Wildlife Service has taken a look at the available facts along these lines and come up with an answer that may help to clear up this matter. According to the Service's Technological Laboratory in

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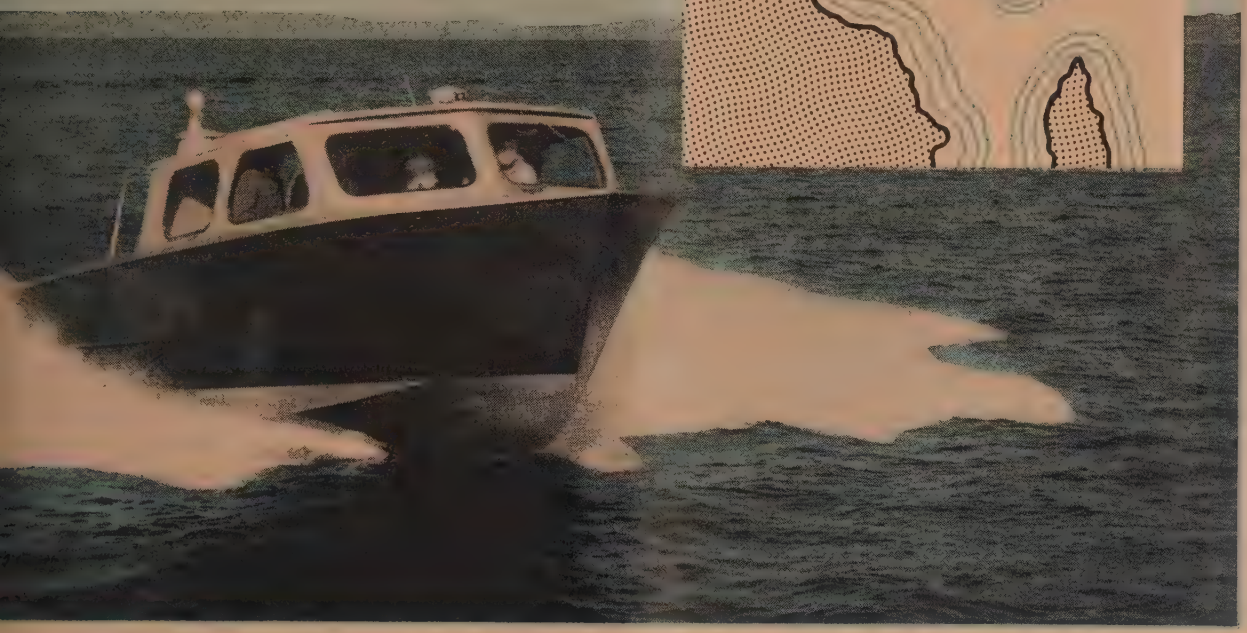

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CITY OR TOWN STATE

Seattle, fish-liver oils were in the past valued for their content of vitamin A and vitamin D only, and all the beneficial properties of these oils were attributed to these two factors. Therefore, when synthetic vitamin A became available the value of the natural sources was greatly diminished. Synthetic vitamin A appears to be identical in every respect with its naturally occuring counterpart.

The fact that fish-liver oils contain substances other than vitamin A, many of which have beneficial physiological or nutritional effects, has long been overlooked. Recent research has indicated that certain of these substances have definite therapeutic effects. These valuable oil components include the fatty acids that make up the fish oil itself, as well as the many other chemical compounds that occur in only trace amounts. It is not known how many dozens, or even hundreds, of these compounds may be present.

Among the beneficial effects of the unsaturated fatty acids, which comprise a large proportion of fish oils in general and fish-liver oils in particular, are the lowering of blood cholesterol in connection with the prevention of atherosclerosis, and the presence of certain "essential" fatty acids that are necessary for proper metabolism.

Some of the therapeutic effects originally attributed to vitamin A are now recognized as being due to the effect of other chemical components present in fish-liver oil. These effects include a healing effect on wounds and burns, a beneficial effect in the treatment of tuberculosis, and a beneficial effect for persons exposed to atomic radiation.

Research conducted at the University of California at Los Angeles for the past several years indicates that at least some of these effects are due, not to vitamin A, but to some of the chemical components present in trace amounts in the unsaponifiable fraction of fish-liver oils.

The U. S. Fish and Wildlife Service, on July 1, 1957, completed a contract with the Hormel Institute of the University of Minnesota to carry out a broad research program on the nutritional effects of fish oils in general. This program will encompass work along three lines: (1) effect of fish oils on atherosclerosis, (2) determination of the quantity of "essential" fatty acids present in fish oils, and (3) investigation of the nutritional and therapeutic value of trace substances present in fish oils and fish-liver oils. This broad program should do much to clear up points that at present are quite obscure.

Monterey Sardine Seiners Seek Fish Near Home

Part of Monterey's sardine purse seine fleet left that port Aug. 19 to scout for sardines off of Monterey. Should no fish be found in the immediate area it was planned that they continue to Avila and continue the search in that area.

Processors and boat owners agreed on ex-vessel prices of $52.50 per ton, with trucking charges to be paid by the fishermen from port of landing.

This compares with a price of $47.50 per ton, less trucking charges, paid fishermen at the start of the 1956-57 season.

There is also a sliding price based on the amount of mackerel in a mixed load.

The scale is as follows: clean sardines with up to 25% mackerel mixed, $52.50; sardines with 26 to 46% mackerel mixed, $45.00; sardines with 47 to 50% mackerel mixed, $42.50.

Among the boats leaving Monterey were *Diana, New Roma, Twin Brothers, Riso Brothers, Star of Monterey,* and *Lina V. II.* These boats left primarily to fish for mackerel, but it was hoped that sardines would be found. No concrete reports of any large schools of these fish have been made however.

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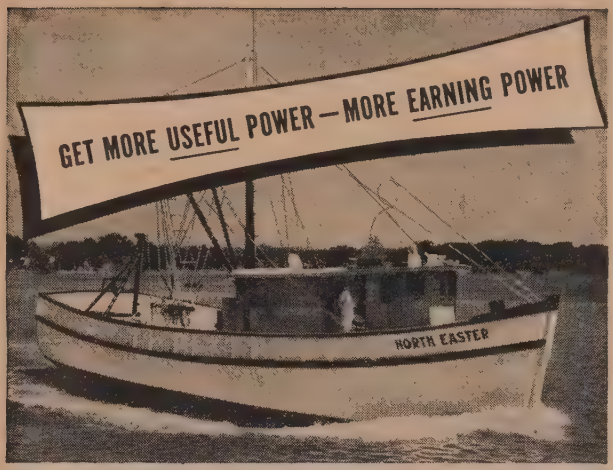

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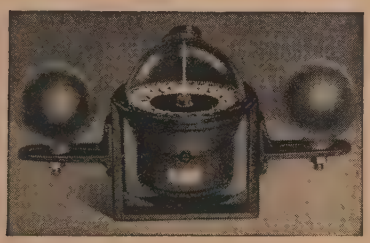

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Hunter & Foland Draw Fish From 4 Stations

Hunter & Foland Fish Co., with headquarters at Fields Landing, near Eureka, now have four receiving stations according to Bud Thomas, general manager of the firm.

The receiving stations are at Crescenty City, Guy Griffin, manager; foot of I street, Eureka, Ray Walker, manager; foot of E street, Eureka. Bruce Johnson, manager, and the main plant at Fields Landing of which Mr. Thomas is manager.

At Fields Landing drag fish, crab and shrimps are processed; salmon is the specialty at the E street plant; at I street, crabs and shrimp are processed.

Hunter & Foland was founded a number of years ago as a whaling venture at Fields landing, and in fact the partners own several whale killers which are catching whales for the Del Monte Fishing Co. which is now operating a whaling plant at Point San Pablo, Richmond, Calif.

Owners of the firm are G. A. "Gib" Hunter and Hermann Foland, and they started in the fresh fish business in 1953. They now have 11 trawlers fishing for them.

Walter Lunardini, partner in Shoreline Diesel Maintenance, Fishermen's Wharf, San Francisco, General Motors Detroit Diesel Engine dealer, and engine repair shop, and Miss Carmen Pizzola, El Cerrito, were married last month in Las Vegas, Nev. They will make their home in San Francisco.

Frank Frumenti, skipper of the San Francisco hook-and-line boat **Seven Seas,** has repowered it with a Chrysler Crown, purchased from and installed by Boicelli & Boss, Fishermen's Wharf, San Francisco.

Harold Schulte has repowered his hook-and-line boat **Michael Boy** with a Chrysler Crown, purchased from and installed by Boicelli & Boss.

Cattolica Fish Co., Fishermen's Wharf, San Francisco, has installed a new York flake ice machine, and a new ice bin to go with it.

California State Fish and Game Commission in late July increased the shrimp quota out of Bodega Bay to 600,000 pounds.

General Petroleum Corporation has made a number of improvements at the marine service station at Fishermen's Wharf, San Francisco, where Ed Cota is agent.

The company has put in two new four inch pipe-lines one for diesel fuel and the other for gas, and a new high speed pump, with a capacity of 10,000 gallons per hour, to dispense diesel fuel.

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N.M.T. Shifts Commands In its Clipper Fleet

Capt. John F. Goodwin, administrator of National Marine Terminal, Inc., in San Diego, announced several promotions within his firm's tuna fleet last month.

Erlin Perreira, former navigator on the *Sea Preme*, was given command of the *Carol Virginia*. Joseph Alioto took command of the *Mary Barbara*. John Balestrieri moved from command of the *Lucy Elena* to that of the *Sun Jason*. David Rico, former commander of the *Sun Jason*, was given command of the new steel clipper *San Juan*. Gerald Thomas, former navigator of the *Carol Virginia*, became captain of the *Fatima*.

Grounded Craft Stripped

Johnny Poutous' 46-ft. Albacore boat *Arlette J.* of San Diego went on the rocks at Tijuana Point recently and was badly damaged. After Skipper Poutous went for help the boat washed up on the beach and natives in the area, apparently thinking her abandoned, stripping her of everything movable, including her 15 tons of Albacore. Even the mast was missing when he returned to the scene.

Star and Crescent Boat Co.'s tug *San Miguel* buoyed her up with oil drums, pulled her off the beach then towed her back to San Diego, where she is undergoing repairs at the Boyce Boat and Yacht Co.'s yard. The boat was not insured.

Californians Get Bulk Of Pacific Loans

Along the Pacific Coast $553,394 for loans to fishermen for repairs, financing and re-financing have been approved by the U. S. Department of Interior, it announced in August.

California fishermen have received $407,317 of this amount, with $100,000 going to San Pedro fishermen and $230,000 to fishermen in San Diego.

This program for loans to commercial fishermen was established in 1956 by act of Congress. Ten million dollars was allocated for the purpose.

Thus far, 128 loans totaling $3,457,183 have been approved. Applications still to be acted upon exceed by $543,000 the 10 millions allocated.

Ft. Bragg Fishermen Adds Boats as Sideline

Ray Welsh, former fishermen's union official and well known Fort Bragg, Calif., fisherman, is now associated with Sportsmens Dock, Noyo Harbor, Fort Bragg, where he is busy building Fiberglas boats in 13, 15, and 18' sizes. Most of his boats have gone to the California Department of Fish & Game for tenders and patrol boats.

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Bernt Melver, Former "Coolidge" Owner, Dies

Bernt A. Melver, 72, formerly co-owner of the halibut vessel *Coolidge*, died in Seattle August 11. He had lived there since 1906, and retired a few years ago from active fishing.

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Tom Russo, Mobil Marine agent in Monterey, California, has been serving the skippers of everything from outboards to purse seiners for over 10 years. Located on Municipal Wharf No. 2, Tom offers many distinct advantages to his customers. His high speed fuel lines, large storage capacity and complete line of Mobil Marine oils and lubricants are only part of the popular "Russo Service." In addition, he offers ample docking space, a wide area in which to turn around, and—best of all—a pick-up truck to run into town for parts or supplies. The next time you put into port for service...pull alongside of the Flying Red Horse. Regardless of what port you are in, this is your guarantee of top quality in service and product...Mobil, a name known throughout the World.

GENERAL PETROLEUM CORPORATION

2-187

Calif. "Streamlines" Marine Fisheries Administration

"Streamlined styling and more horsepower" is the objective of the reorganization of the Marine Fisheries Branch of the California Department of Fish and Game, which became effective August 1 when Phil M. Roedel took up his duties at Terminal Island as the State's first Marine Resources Operations Manager.

The new look, which evolved from conferences with the Department of Finance by Branch Chief Richard Croker and Assistant Chief William Ripley at the request of the Department Director Seth Gordon, was planned to get the utmost efficiency out of the present organization.

Formerly Mr. Croker and Mr. Ripley were responsible for all Marine Branch functions. Essentially, the reorganization means that they will be freed of the heavily-detailed functions of operations and administration, which will now be the job of the Resources Operations Manager. Lightening of Mr. Croker's workload will enable him to concentrate on the business of providing staff assistance and expert information to the director, to counsel on legislative problems and regulations involving both the commercial fishery and the marine sport fishery, to recommend areas and scope of investigational projects based on the needs of both, and to translate findings into recommendations. Mr. Ripley will assist him in these matters.

PHIL M. ROEDEL, California's first Marine Resources Operations Manager, stationed at Terminal Island under the new Department of Fish and Game administrative set-up.

Mr. Roedel will be responsible for operations, personnel, business management and public relations of the Marine Resources Operation.

Under the Marine Resources Manager will be a staff of five.

Shrimp Packing's Newest Entry—Harbor Seafoods

Newest operation to enter actively the rapidly-rising Washington ocean pink shrimp packing business is Harbor Seafoods, a crab canning concern with an active plant at Bay Center, Wash., a key spot on Willapa Harbor, midway between Grays Harbor and the Columbia River.

Steve Sarich, one of the principals in Harbor, said the plant has its Peelers machine installed at the end of the third week in August, and would be canning shrimp shortly after September 1.

The operation will be served at the start by two trawlers, with three other boats from the Columbia River to be added shortly in order to give it a consistently capacity operation. First boats to deliver to Harbor will be Don Horne's *Ethel May* and Ben Swan's *Dorby S.*

The shrimp is to be canned under the "Harbor Bell" label. Brokers are Junge-McGregor Co. in the Pacific Northwest and Theobald Brokerage in San Francisco.

Switch in Saltonstall Job Policy Reported

American Fishery Advisory Committee members, counselling in Alaska in August on the U. S. Department of the Interior program for use of the Saltonstall-Kennedy Funds, expressed opinion that the assignments as far as possible should go to government employes, according to the Department of the Interior news release covering the meeting.

If this is in fact the case, it indicates reversal of previous opinion, which inclined strongly toward contracting the projects to qualified private research specialists and agencies; thus avoiding the build-up of a federal employe structure which would continue to exist after the project had been completed.

Committee members are said to have expressed concern over the increasing degree to which Saltonstall-Kennedy funds are used to finance continuing operations, believing these moneys should be used for more specialized and critical problems of less permanent duration.

Postponed to November 1957!

PACIFIC FISHERMAN'S Special Issue

"THE FISHERIES OF PERU"

- Growth of Peru's fisheries since World War II from nothing at all to almost 100 modern, active plants is one of the industrial phenomena of a phenomenal twelve years.
- To study these fisheries, their growth and their latent possibilities, PACIFIC FISHERMAN this spring dispatched its editor to Peru, where he spent a month gathering material and photographs.
- Now in the course of preparation, this comprehensive report upon one of the most dramatic developments in the whole history of the Pacific Fisheries will occupy our entire November issue, which will prove a valuable source book on the fisheries of Peru, for producers and distributors of canned fish the world over.
- COMPLETE COVERAGE: Our November issue, without exception, will go to all of the fisheries operators in Peru, Chile and Ecuador . . . as well as to all of the leading South American distributors supplying their requirements for machinery and fishing gear.
- Whether you are a producer or a distributor of canned fishery products; or a manufacturer of machinery or fishing gear, an advertisement in our Peruvian Issue in November will identify you unmistakably with the dynamic fisheries of South America.

RESERVE YOUR SPACE NOW!

PACIFIC FISHERMAN — 71 Columbia St. — SEATTLE 4.

How to fish 6000 hooks on a 7-mile line

Sailing out of North Sidney, Nova Scotia, the *Lenarfish* daily plies the Atlantic in search of cod and swordfish, often fishing 6000 hooks on a 7-mile line. The vessel is one of a fleet operated by Leonard Brothers, Division of National Sea Products.

The *Lenarfish* features a 275-hp Cummins NHMS-600 Diesel Engine driving through a Twin Disc 3:1 Marine Reverse and Reduction Gear.

According to Captain Thomas Chislett, the Twin Disc Marine Gear is shifted more than 100 times a day and, he says, "We have had no trouble whatsoever . . . even in towing boats of similar size and larger in heavy seas."

This kind of heavy-duty operation is one of the reasons why every Twin Disc Marine Gear is built for maximum life, minimum service and utmost reliability.

If you're planning a new vessel or repowering in the 40 to 340-hp engine class, make sure you demand the very best in marine gears—specify Twin Disc on the marine engine.

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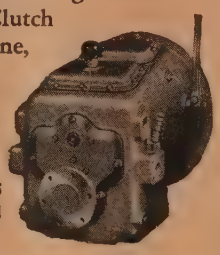

Twin Disc MG-165 Marine Reverse and Reduction Gear.

TWIN DISC
CLUTCHES AND HYDRAULIC DRIVES

TWIN DISC
Marine Gears

Industrial Pollution Top Topic for Oystermen

Problems of industrial pollution, its effect upon aquatic resources, and possible means by which it can be corrected or avoided formed the key topic at the Pacific Coast Oyster Growers Association convention at Bellingham, Wash., the middle of August.

Lee J. Wiegardt of Ocean Park, Wash., was re-elected president; and the official convention program was dedicated to his father, John L. Wiegardt, himself a former president of the association.

Edward J. Gruble of Seattle was re-elected vice president of the association. Trustees re-appointed Malcolm B. Edwards of South Bend managing director and Charles R. Pollock of Seattle secretary-treasurer.

Newly elected trustees were: William Gardiner, Crescent Beach; David C. McMillin, Shelton; Earl P. Morgan, Anacortes; Richard N. Hicks, Olympia; Chester Wachsmuth, Portland; Nat A. Waldrip, Shelton. They join Mr. Wiegardt, Mr. Gruble, Robert O. Bower, Olympia; Earl R. Brenner, Olympia; C. V. Shephard, Belfair; George M. Yanagimachi, South Bend and Stanley Gillies, South Bend.

B. C. Oyster Venture To Test New Method

Mermaid Oyster Producers Ltd., has been organized by Loyal Young and associates to operate at Bliss Landing, 20 miles south of Powell River, B. C.

Mr. Young says he organized his company to take advantage of the government's oyster research program. One of the most important phases concerns the catching of seed oysters in Pendrell Sound, an inlet off Waddington Channel between the Redonda Islands.

With B. M. "Pat" McIntyre, Myron McLeod and Frank Leilleur, Mr. Young plans a $100,000 investment in the oyster venture, and it is proposed to use the floating culture method with oysters growing on wires rather than in beds. This was pioneered on the British Columbia coast by Dr. D. B. Quayle for the provincial fisheries department at Ladysmith.

Mr. Young hopes that it may become possible eventually to reduce the importations of seed oysters from Japan, although the problem has defied most operators in the past.

George H. Leutzinger, for the past five years manager of Peninsula Packing Co., Monterey, has resigned that position, to devote his full time to Cannery Row Properties Co., Monterey, of which he is president.

U. S. Catch Peaks in 1956, BUT—

Imports and Industrial Products Dominate the Area of Prosperity

• American fishermen in 1956 caught the largest quantity of fish in the history of America's oldest industry—5.2 billion pounds, compared with 4.8 billion in 1955 and the previous record of 4.9 billion in 1941.

Landed value to the fishermen is computed by the Bureau of Commercial Fisheries as $363 million in 1956, up from $338 million the year before.

Record volume of American fishery production in 1956 unquestionably stems primarily from the expansion of the menhaden fishery, whose great growth has in large degree offset the decline of the California sardine fishery.

• *Consumption* of fish in the United States, for food and for industrial products as well, aggregated 7.6 billion pounds in 1956, for 2.4 billions pounds were imported.

Thus it is apparent that virtually one-third of all American fish consumption came from foreign sources.

The import trade's full significance is appreciated only when it is recognized that virtually all of the fish from foreign countries is utilized for human food, while a very large proportion of the domestic catch goes into the manufacture of fish oil and meal.

Thus it should be note that of the American *catch* the percentage used for industrial purposes has been increasing steadily, by 1 billion pounds in the past 10 years; and that the amount of the domestic catch used for food in 1956 showed a decline of 400 million pounds from the 1947-50 average.

In the field of human food, the imports have risen from 21% of the supply in the 1947-50 period to 35% of the total in 1956.

• No significant change is noted by E. A. Power, chief of the statistical division of the Bureau, in the per capita consumption of fish in the United States in 1956. It apparently continued to hang about midway between 10 and 11 pounds.

According to the Bureau report:

"Segments of the fishing industry, particularly the New England groundfish producers and the Pacific Coast tuna men, point out that the food fish catch is far below the production capabilities of the American fishing fleets. Tie-up of fishing craft in some areas for as high as 90 days because of lack of market is cited as evidence of this. The tuna fleet, which once numbered 214 large clippers now numbers only 153 because of these long periods of inactivity."

Sinnhuber to Corvallis

Russell Sinnhuber, for many years a food technologist on the staff of the Oregon Sea Foods Laboratory at Astoria, was transferred in August to the food technology department of Oregon State College at Corvallis, where he will specialize in research on fish and sea foods.

"Here comes the fleet now, Cyrano. My, they sure get back in a hurry since they've been using Roebling Special Galvanized Rope."

Anybody that hangs around a fishing fleet knows that Roebling fishing boat rope does a tough job longer. It's easy to handle and specially galvanized to stand up under hard work and around-the-clock corrosive attack.

Take a tip from a couple of wise birds who know a well-run fleet when they feed off one. Roebling SPECIAL GALVANIZED is tough... for shrimp rope, trawling rope and purse seine rope. Call your distributor or the nearest Roebling office. John A. Roebling's Sons Corporation, Trenton 2, New Jersey.

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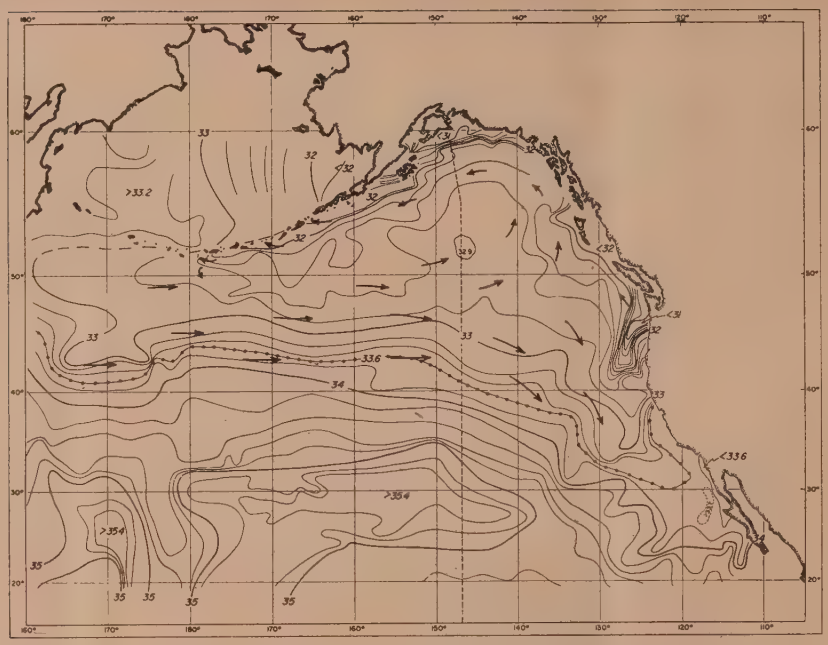

Surface salinity distribution in the northeast Pacific Ocean, with the critical 33.6% salinity curve which appears to be a barrier to salmon on the high seas shown as a beaded line.

Why are Salmon Where You Find Them?

Because Temperature and Salinity Erect Unseen Barriers in the Sea

By
John P. Tully
and
A. J. Dodimead

The authors are members of the staff of t Pacific Oceanic Group, Biological Statio Fisheries Research Board of Canada, Nanaim B.C. This discourse on the physical factors ocean water controlling the distribution salmon in the sea was presented by Dr. Tul before the Biology and Research Committ of the International North Pacific Fisheri Commission at Seattle, and subsequently Progress Reports No. 107 of the Fisheri Research Board of Canada.

● On Project NorPac 12 oceanographic agencies around the Pacific made a synoptic survey of the ocean north of the Tropic of Cancer during the period mid-July to Mid-September, 1955. Each agency surveyed a part of the area, and they exchanged data with each other. This provided the first overall picture of the northern ocean and has made it possible to discuss some of the principal oceanographic features which distinguish the parts of the ocean where salmon occur, from those where they do not. The data of particular interest in this report were gathered by oceanographers from the Scripps Institution of Oceanography, University of Washington, and the Pacific Oceanographic Group of the Fisheries Research Board of Canada.

The surface sea water temperatures north of latitude 48° N., along the Aleutian Islands and in the Gulf of Alaska, were between 10° and 12°C. (50° and 54°F.). These were the maximum summer temperatures experienced during 1955. In this northern region the temperature structure varies seasonally. In summer a warm, homogeneous upper zone 10 to 20 metres (5.5 to 11 fathoms) in depth is formed. This lies over the cold waters of the deep ocean whose temperature is very nearly constant. In winter the upper waters are cooled. In the Gulf of Alaska the temperatures in the upper 120 metres (65 fathoms) of depth decrease to about 5°C. (41°F.), close to those of the deeper ocean waters.

In mid-ocean south of latitude 38° N. the surface temperatures were generally above 24°C. (75°F.) and increased slightly towards the Tropic These temperatures vary slightly wi season, but the warm upper layer present throughout the year. Tempe atures greater than 12.5°C. (54.5°F are found as far north as latitud 48° N. in midsummer. By late wint only the waters south of latitud 38° N. are this warm. Thus the regio of particular temperatures shift wi the seasons.

The character of the water al depends on its salt content, which independent of temperature. Th values are least in the Gulf of Alask and along the North American coas and increase towards the Tropics mid-ocean. The salinity structures the northern and southern waters a distinct. In the Gulf of Alaska th salinity increases with depth; in th sub-Tropics it decreases.

South of latitude 38° N. in the su Tropics the surface salinity is hig (greater than 35%) and becomes le toward a minimum at 600 metr (330 fathoms) depth. This structu occurs at all times of the year.

A typical salinity structure in th gulf shows that in the upper 60 100 metres (33 to 55 fathoms) depth the salinity is low—less tha 32.8 parts per thousand (%). Th low-salinity water lies over the dee ocean water whose salinity is greate than 34%. It is the same structu that is observed in Canadian an Alaskan coastal waters. Previous ob servations show that this layer of lo salinity water occurs throughout th year. *The salinity structure, unlike th temperature structure in these nort ern regions, is a permanent featur* It is associated with the circulatio of the water around the Gulf Alaska and through the Bering Se This structure was observed north the salinity contour 33.6% all acro the Pacific Ocean from Asia to Nort America. In mid-ocean this limit upper low-salinity water occurs b tween latitudes 40° and 42° N. A proaching the North American coa it veers southeastward toward the Cal

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Repowered "Fleetwing" gets new 5½-inch Tobin Bronze® Shaft

"Fleetwing" is one of seven fine trawlers in the well-known Murley fleet operating out of New Bedford, Mass. When she was repowered recently during an overhaul at Hathaway Machinery Co., she also got a new 5½" by 10' Tobin Bronze Shaft to transmit that power dependably.

Tobin Bronze Propeller Shafting resists sea-water corrosion. It is strong and tough —yet "gives" under sudden jars to lessen the possibility of damage to bearings and housings. It is available through leading distributors of marine supplies. For detailed information, see your distributor, or write: The American Brass Company, Ansonia Division, Ansonia, Conn. District Sales Offices: Los Angeles, Calif., at 14900 Garfield Ave., Paramount — San Francisco 4, Calif., at 120 Montgomery St.—Seattle 1, Wash., at 902 White-Henry-Stuart Bldg.

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TEMPALOY®-917, a nickel-bearing bronze, was developed by The American Brass Company as a high-strength, tough companion shafting to Tobin Bronze. It is readily available and moderate in cost. Ask your marine supply dealer about it.

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fornia coast.

The structure appears to be associated with the circulation of wate around the Gulf of Alaska an through the Bering Sea. As this drif approaches the North American con tinent, some of the water turns sout and flows toward the Equator. Th remainder turns north and move slowly around the Gulf of Alaska an is dissipated through the Aleutia Islands into the Bering Sea.

There are two distinct regions. Th mid-ocean region south of latitud 38° N. is in the sub-Tropics. Her the surface waters are warm and salin in all seasons. Both the temperatur and the salinity decrease with depth Sub-Arctic water occurs along th Aleutian Islands and in the Gulf o Alaska, north of latitude 48° N. Her the surface waters are warmed in sum mer and cooled in winter, and hav a low salinity in all seasons.

The fishing experience around th north Pacific shows that salmon occu in all the coastal waters which hav the same temperature and salinity characteristics as the sub-Arctic water in the Gulf of Alaska. Data from exploratory fishing by United State and Japanese agencies during the sum mer of 1955 indicates that *salmo occur in the waters having these prop erties, but do not occur outside o them.* The temperatures of these waters vary greatly through the year. In the coastal region the sal mon tolerate surface temperature from less than 5° up to 20°C. (41 to 68°F.). Salmon have not been sought on the high seas in winter, but in view of the coastal experience it is reasonable to assume that they would not desert the northern seas because of the low winter tempera tures.

The salinity of the upper zone re mains low all year round in the coastal waters where salmon are known to occur, and in the northern offshore waters where they may be antici pated. Exploratory fishing for Alba core has not encountered salmon in the regions of high salinity, even in the winter when the temperatures fall within the known range of tolerance. It appears probable that salmon are associated with the northern salinity structure, that is, an upper zone of low salinity.

Edwin Monk Moves

Edwin Monk, Seattle naval architect, has moved from his former office location at 1500 Westlake Avenue, to a downtown location affording slightly more space for his work in design of all types of small craft. His new location is 616 National Building, Seattle 4, Wash., at the corner of Madison and Western Ave.

Mild Cure Output Runs Ahead of Last Year

Salmon mild curing was rated as several hundred tierces ahead of 1956 to the end of August by some of the closest students of the situation. Moreover, they felt that market was showing a lot of interest, and even a little anxiety as to further supplies. You could even hear a little talk about the possibility of curing some Silvers, if you listened closely.

California curing slipped rather badly during August, but August fishing seemed to improve, with the result that it was quite certain that the month would show a net gain over the year before. However, this increased 1957 production was not more than enough to off-set the carryover with which the 1956 season began; something entirely vanished by 1957.

Carquinez Reduction Plant Shipped to Peru

Carquinez Fisheries, one of the few remaining sardine reduction plants on Pt. San Pablo, Richmond, Calif., was sold by John Costanza, managing partner to Westgate California Tuna Packing Co., San Diego, for installation at Red Rock in northern Peru.

Most of the equipment in the plant was Enterprise.

Van Camp Reduction Units Sold to Peru

The two Van Camp Sea Food Inc., reduction units at Warrenton, Ore., which were purchased some time ago by J. R. Townsend, San Francisco fishery consultant, have been sold to Carl A. Hedreen and associates, Lima, Peru.

It is understood that the equipment, which consists of one California Press Manufacturing Co. 15 - ton - per - hour unit, and a Calpress 12-ton-per-hour unit, will be installed near Chimbote.

Oregon Fishway Will Open Spawning Grounds

The Oregon fish commission has started rock excavation for a $20,000 fishway over a 10′ high natural falls on the north fork of the Nehalem river in Clatsop county according to Harry C. Warren, fish commission director of engineering.

About 12 miles of spawning and rearing area will be more accessible to silver and fall Chinook salmon, Steelhead, and cutthroat trout when the project is completed. Warren said the falls have been a partial barrier to migratory fish at certain water flows in the past.

Dead Abalones Point Finger Toward Pollution

According to the California Department of Fish and Game, of 350 tagged abalone transplanted from Santa Cataline Island to the White Point area near San Pedro only seven were found alive less than a year later.

Evidence is strong, says the department, that most of the abalones were victims of water pollution from the White Point outfall sewer. Rocks in the vicinity are almost bare of living organisms and the inshore area is covered with empty shells of dead abalones and other mollusks.

Earl Gustafson Dies

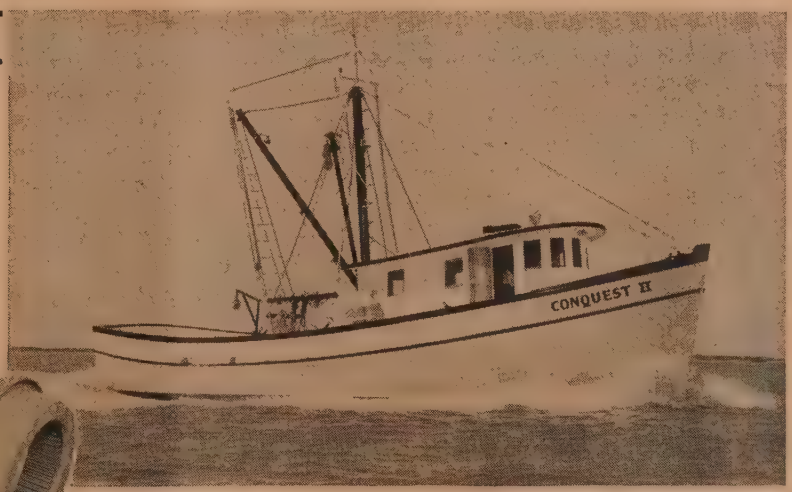
C. Earl Gustafson, field sales director for Breast - O' - Chicken Tuna, Inc., died suddenly at his San Diego home recently. Mr. Gustafson joined Westgate-California Tuna Packing Co. in 1954 after a long, successful career in the brokerage and retail grocery business.

He started in the seafood business in 1929 with the old Westgate Sea Products Co. and rose to executive assistant to Wiley Ambrose, founder of the firm, before leaving to operate his own brokerage business.

Mr. Gustafson is survived by his widow, Florence, and three children.

CONQUEST II

ENTERS SHRIMP FISHERY



Assured of instant response . . . full forward to full reverse in just 3 seconds . . . with fingertip maneuverability, Owner-Captain Ernest Grant Howes III of Chatham, Massachusetts enters the shrimp fishery off the Florida and Texas coast he fished in 1954.

Built by the Morehead City Shipbuilding Corp., the Conquest II is 17′ beam and 58′ long with 5′9″ draft and is powered by the Allis Chalmers 6-DAMR-844 diesel with Capitol HYC 3.88-to-1 reduction gears.

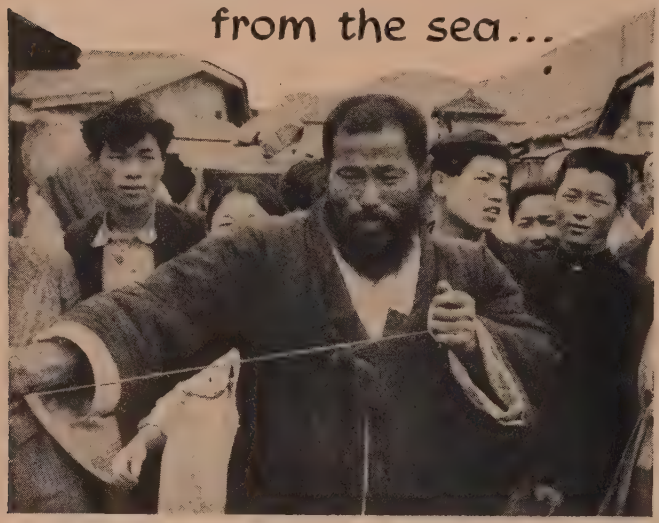
The Conquest II is a striking example of an experienced boat owner who demands the very best in gears for unmatched performance, maneuverability and long trouble free life.

Whether fish boat, work boat or pleasure boat, there is a Capitol Gear for each model up to 500 H.P. at 1000 R.P.M. Write for details.

CAPITOL GEARS

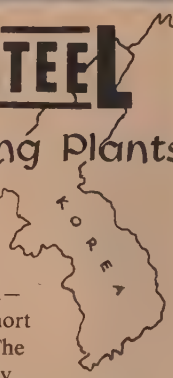
AUTO ENGINE WORKS, INC.
325 North Hamline Avenue
St. Paul 4, Minnesota

That this fisherman's line may again wrest food from the sea...



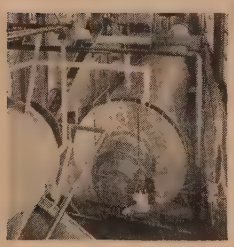
STANDARD STEEL

builds 3 new Processing Plants for KOREA



THE PROBLEM: War-ravaged Korea—with all foods in short supply—looks to the sea for salvation. The Sea provides immediate food for hungry people... and fish meal used to fertilize the soil and for animal food... helps restore the agricultural and livestock economy. But, without fish canneries and processing plants to convert the spoils of the sea into edible foods, meal, and oil, the all-important Korean fishing industry is seriously hampered.

THE SOLUTION: Three modern Standard Steel fish processing plants—two canneries and a reduction plant to produce high-grade fish meal and fish oil. Thus, the fishing industry and the livestock and farming economy are given a much needed boost—a real step forward in Korea's return to economical independence.



Superior Performance:
The Standard-Hersey fish dryer shown here produces 2% to 5% protein gain with 2½% more meal! Oil is low in free fatty acid... a big gain in product value!

Write For Information!

STANDARD STEEL CORPORATION

General Offices and Factory, 5013 Boyle Avenue, Los Angeles 58, Calif.

LEADER IRON WORKS

Midwest Offices and Factory
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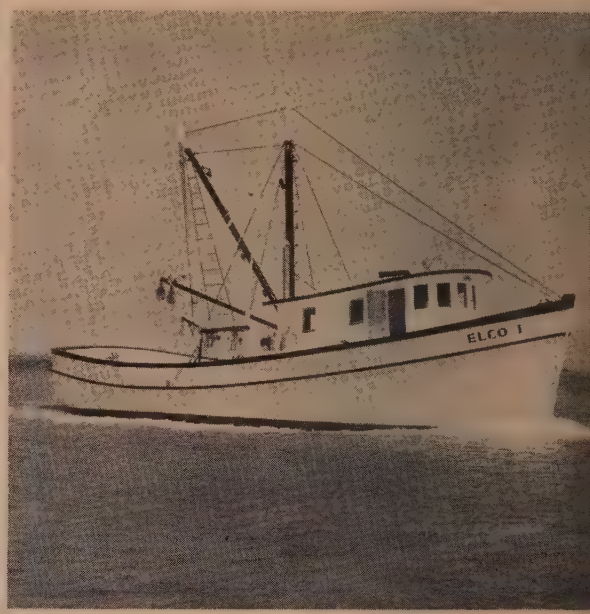
ROTARY DRYERS • KILNS • COOLERS • ASPHALT PLANTS

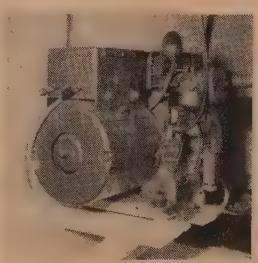
ELECTRIC PLANT
NEWS



New trawlers equipped with Onan Battery Chargers

ELCO 1, CAPTAIN PUCK and other trawlers in this class rely on Onan for dependable electricity

The Morehead City (N.C.) Shipbuilding Corporation builds dependability into their craft. The equipment installed must meet the same high standards as the boats themselves . . . which makes Onan generating equipment the logical choice. Smooth-running, compact, easy to install . . . and above all dependable . . . Onan Electric Plants and Onan Generators have an unmatched reputation for service and reliability.



TAKES NO FLOOR SPACE; SMOOTH-RUNNING, QUIET

Pictured at left is the air-cooled, 750-watt, gasoline-operated Onan Plant on the ELCO I. Note the off-the-floor mounting and small size of this dependable unit. Hundreds of these Onan battery charging plants have been installed on fishing craft and workboats.

A size for every craft. *AIR-COOLED GASOLINE MODELS: 500 to 10,000 watts A.C. Also D.C. and battery charging models. AIR-COOLED DIESEL MODELS: 3 and 5 KW A.C., 3 KW, 32-volt battery charger. WATER-COOLED GASOLINE MODELS: 1 and 3 KW A.C., and battery chargers. WATER-COOLED DIESEL MODELS: 3 KW A.C., 24, 32 and 110-volt battery chargers; combination A.C., D.C. model. SEPARATE GENERATORS: A.C. and Battery Charging units.*

Write for literature on gasoline and diesel plants

D. W. ONAN & SONS INC.

3727 University Ave. S. E., Minneapolis 14, Minnesota

ELECTRIC PLANTS • AIR-COOLED ENGINES • GENERATORS • KAB KOOLE

Extra Quota in Fishless Area Arouses Herringmen

• Best herring season Alaska has had in a good many years ended with a sour note so far as Southeast Alaska was concerned.

With its quota of 180,000 bbls. filled by July 21, Southeast Alaska was granted an additional quota of 60,000 bbls. by the Alaska Administrator's office— but there was a catch in it. The added quota had to be taken from waters south of Cape Decision, where the fish weren't.

After proving this fact to their full satisfaction, the Southeast Alaska operators and fishermen decided to call it a season and head for home before they spent all they had made trying to catch 60,000 bbls. of fish in waters which were commercially barren.

This fall's hearings on the Alaska regulations, climaxing at Seattle Nov. 13-15, will undoubtedly provide an airing for the hearing industry's complaints on the treatment accorded their business in the name of conservation. They protest bitterly that there was no sound scientific reason for limiting the extra quota to unprofitable waters; and declare that the real reason for the limitation in a time when herring were extremely abundant off the Baranof Island west coast was the political power and pressure of the organized trollers of Southeast Alaska.

• Production of herring in the Kodiak Island and Prince William Sound areas was excellent in spite of the limited operations, with only Port Vita and Zachar Bay running in the Island area and one plant on PWS. Fishing generally was good.

SAN JUAN

STEAKS FROM THE PACIFIC!

fresh frozen

HALIBUT AND SALMON

PORTION CONTROLLED STEAKS

and now . . .

HALIBUT
SALMON
and FISH
STIX

fresh frozen — breaded — ready to cook

SAN JUAN

SAN JUAN FISHING & PACKING CO.
FOOT OF STACY STREET – SEATTLE

maintenance down
. . . profits up!
ALLOY WIRE BELTS

Woven wire conveyor belts by ALLOY WIRE BELT CO.—serve your production needs better. Our central western location means faster service—less down time, greater economy. Your vital belts are ready *when and where* you want them. Prepared in any weave, any metal, flat wire or round wire —ALLOY BELTS will cut your production costs!

• *WRITE or PHONE today for details!* Ask for our illustrated brochure.

ALLOY WIRE BELT COMPANY
226 PHELAN AVENUE • SAN JOSE 12, CALIFORNIA
TELEPHONE CYpress 5-7762

THE BIG 4 IN DIESEL POWER

AMERICAN MARC Inc. dominates the field of lightweight, low-horsepower Diesels by building its diversified line from the "Big Four" basic models illustrated here. Purchase and maintenance of engines and parts are simplified by the use of these compact and rugged prime movers.

AC1:
Air-cooled, one-cylinder, four-cycle 6.5 BHP at 1800 RPM
AC2:
Air-cooled, two-cylinder, four-cycle v-type, 13 BHP at 1800 RPM
WC1:
Water-cooled, one-cylinder, four-cycle 7 BHP at 1800 RPM.
WC2:
Water-cooled, two-cylinder, four-cycle v-type, 15 BHP at 1800 RPM

AMERICAN MARC also manufactures Diesel generating plants from 3 to 10 KW (AC or DC, and industrial three-phase), Diesel pumping units from 48 to 1700 GPM, marine propulsion, refrigeration units and power-packages for other services. American MARC can adapt any of its Big 4 engines to fit every job requiring from 5 to 20 BHP.

INQUIRIES ARE INVITED FROM DISTRIBUTORS AND DEALERS

AMERICAN MARC INC.
DIESEL ENGINES
1601 West Florence Ave.
Telephone OR 8-7174
Dept. PF-97
Inglewood, Calif.

AMERICA'S LARGEST MANUFACTURER OF AIR-COOLED DIESELS

today's challenge

— there is no magic formula for packing and selling canned salmon.

— many other foods fight for the favor of the housewife and her family.

— to meet this challenge the Industry must produce a product of quality and economy.

— salmon that has the reputation of always being painstakingly packed draws to itself elements of support that are lasting.

PACIFIC AMERICAN FISHERIES, Inc.
BELLINGHAM, WASHINGTON

Quality Always

Sales Subsidiary: DEMING & GOULD COMPANY
BELLINGHAM, WASHINGTON

FOOD FISH MARKETING

Section of PACIFIC FISHERMAN--

News and Views of National Trade in Fish and Shellfish

September, 1957

Tuna Men of Two Nations Plan Joint Market Drive

• Development of a specific program for an unprecedented cooperative campaign by the United States and Japanese tuna industries for expansion of the market for canned tuna in the United States was confided to a joint executive committee following a series of meetings of representatives of the two national industries in Los Angeles the middle of August.

While this executive committee of six starts preliminary work on the promotion program, tentatively expected to cost approximately $700,000, the Japanese representatives will discuss the financial details with their industry and the Japanese government.

The membership of the executive committee is:

United States—M. J. Gorby, president, California Marine Curing and Packing Co.; Donald P. Loker, vice president, Star-Kist Foods, Inc.; William B. Dugan, vice president, Van Camp Sea Food Co.

Japan — Kazuo Kamogawa, Taiyo California, Inc.; Fumio Kinoshita, Tuna Packers Association of Japan; Tatsuro Kanbe, International Tunafish Association.

Final decision on the exact amount to be appropriated, as well as the character of the campaign, will be determined at a meeting of this committee in September. Mr. Gorby served as chairman of the United States industry group and also as temporary chairman of the joint executive group during its preliminary meetings in August.

The members of the industry committee which planned the overall program included, beside those already named: John S. McGowan, Columbia River Packers Association; A. H. Mendonca, president, F. E. Booth Co., Inc.; and Charles R. Carry, executive director, California Fish Canners Association; Takechiyo Matsuda, president, International Tuna Association of Japan; Tomohachi Ueda, deputy director, Japan Export Frozen Aquatic Product Manufacturers Association; Tomoo Baba, managing director, Tuna Packers Association of Japan; Yoshiharu Adachi, managing director, Japan Export Frozen Aquatic Product Manufacturers Association.

General meetings were presided over by Donald L. McKernan, director, U. S. Bureau of Commercial Fisheries. Other U. S. federal officials attending as observers included:

Ross L. Leffler, Assistant Secretary of the Interior; William Redmond, U. S. Solicitor's Office, Department of Justice; Harry Shooshan, technical review staff, Department of the Interior; D. Y. Aska and S. Ross Hatton, Bureau of Commercial Fisheries.

Japanese government officials attending as observers included:

Takeshi Kimura, counselor to the embassy of Japan, Washington, D. C.; Hideo Okuhara, Fisheries Agency, Japanese Office of Agriculture and Forestry; Shigeru Nakamura, Japanese Consul General at Los Angeles; Michihiko Kunihiro, Japanese Vice-Consul, Los Angeles; Donald Tanzawa, assistant to Consul General.

Japanese Delegation, above—From the left, Fumio Kinoshita, Japan Canned Tuna Distributing Co.; Tatsuro Kanbe, International Tuna Association of Japan; Hideo Okuhara, (Observer) Japan Fisheries Agency; Yoshihiro Adachi, National Frozen Food Export Marine Industry Assn.; Ichiro Miyake, National Frozen Food Export Marine Industry Assn.; Takechiyou Matsuda, International Tuna Association of Japan and member of the Japanese Diet; Tomohachi Ueda, Japan Canned Tuna Export Marine Industry Assn.; Takeo Baba, Japan Canned Tuna Export Marine Industry Assn.

American delegation, below—From the left, M. J. Gorby, California Marine Curing & Packing Co.; Charles R. Carry, California Fish Canners Association; Donald P. Loker, Star-Kist Foods, Inc.; Arthur H. Mendonca, F. E. Booth Co., Inc.; John S. McGowan, Columbia River Packers Association, Inc.; William Dugan, Van Camp Sea Food Co.

OPENING PRICES —

Salmon Quotes Cling Close To Last Year's First Tags

• Opening prices on new-pack Alaska canned salmon were announced surprisingly by two leading factors the middle of August on Reds, offered at $34 for talls and $23 for halves, advertised brands.

These factors left their spot prices on other items unchanged at the moment: Pinks, featured brands, $24 and $14.50; Pinks, unadvertised, $23 and $13.50; Cohoes, $30 and $16.50; Chums, $21 and $20, with $12 for halves.

Prices generally were closely in line with those named a year before.

• Straight brokerage houses quickly whipped-out their prices, generally $33 for Red talls, with halves $2 lower than the opening of the large producers.

Further, they dropped Chum talls to $19, as compared with $21 and $20, one broker saying by way of explanation:

"We are painfully aware of what the narrow spread between Pink and Chum talls did to the Chum business last season, and we are determined to avoid a recurrence. A $19 fob. Seattle price will sell Chum tall salmon, and are hopeful that eventually we shall have enough Chum salmon to sell."

• New-pack salmon from both Alaska and Japan had arrived in Seattle by the middle of August and was being inspected and cleared for shipment rapidly at presstime. Accumulated orders were being covered first and preparations made to handle the heavy movement with all dispatch consistent with sound quality control and certification.

Largest single shipment of canned salmon ever received at Seattle in a bottom from Alaska came the midd of August on the *Tonsina,* which h 356,000 cases, valued at approximat ly $13 million.

• While the unusually late protracti of the Puget Sound Sockeye run w still producing some pack at presstim sellers apparently had firmed th price ideas at $23 per case of Soc eyes, machine-packed, with $24 f handpacked.

This puts the latter item in exact the same category with Columb River fancy Chinooks (although o big packer on the River is getting $ for his advertised brand).

There were some quizzical loo when the leading factors quoted $ per case of Alaska Red machine-fill halves, parity with similar Sockeye and these looks were translated in brokers' offers generally at $21 f Reds, with some at $22.

• Those ahead-of-packing deals f Japanese Reds and Pinks, which look so risky last spring when they we made, are now being re-labelled as "t smartest kind of business."

THE VALUE OF WORK

Thinking men know that work is the salvation of the race. Morally, physically, socially, work does more than get us our living; it gets us our life.

—*Henry Ford*

COLUMBIA RIVER PACKERS ASSOCIATION, INC. Astoria, Oregon

North Calif. Fish Week Promotion Impressive

Northern California's fish industry will go all-out for National Seafood Week, September 18-28, according to John Gilchrist, manager of the Northern Calfiornia Seafood Institute, San Francisco.

Heading the program is Neil Taylor, Norfish Sales Co., Oakland, and a regional vice-president, NFI. At a meeting last month the Institute raised funds for the promotion, which will include a fish boat parade, tasters days at Fishermen's Wharf restaurants for food editors of the area's various newspapers, television and radio stations, and point of sale advertising in food markets and restaurants.

This is the first time such an ambitious program has been undertaken by the northern California sea food industry, and according to Mr. Gilchrist, if it is a success, the Institute might very well undertake a continued promotion campaign at the market and restaurant level, stressing public education as to the health values in sea food. John G. Martin, John G. Martin Food Broker, San Francisco, is in charge of this phase of the Institute's activities.

It was also decided at last month's meetings of the group, which was one of the largest and most enthusiastic to be held, that a Crab Fiesta would be held to celebrate the opening of the crab season in November. It is contemplated at this time to have a crab boat parade, and dancing in the street at Fishermen's Wharf, to the accompaniment of strolling musicians. Point of sale advertising in markets and restaurants would also be used.

S. P. Trixler Becomes SeaPak Sales Chief

SeaPak Corporation of St. Simons Island, Ga., frozen seafood packers, announces appointment of S. P. Trixler as general sales manager and advertising director.

Mr. Trixler has been affiliated with SeaPak Corporation since March, 1956, in the capacity of assistant sales manager. Prior to this affiliation he was affiliated with the Trixler Brokerage Company in partnership with J. Thomas Trixler, in Portland, Ore. and Van Camp Sea Food Co.

Westgate Shifts Agencies For Products Advertising

Westgate- California Tuna Packing Co. announced last month the appointment of Guild, Bascom and Bonfigli as advertising agency for its "Breast-O'-Chicken" tuna and the Elwood J. Robinson Co. as agency for its cat food, "Purr".

Specialists in grocery merchandising, these advertising agencies plans include intensive in-store merchandising programs and stepped-up advertising effort.

Women Help to Sell "American" Brand Tuna

The American Fishermen's Wives' Auxiliary of the California Commercial Fishermen's Association, Inc. organized recently at Terminal Island to help promote the sale of the association's *American* brand canned Albacore.

Members demonstrate their product in Safeway Stores and in independent grocers' stores. In the Seattle area the women's auxiliary of the Fishermen's Co-op Association also assists in this promotion with store demonstrations.

According to officers of the auxiliary, this high quality, moderately priced Albacore will also be exhibited in booths at the Orange and Los Angeles County Fairs.

Officers of the newly formed California group are: Pres. Frances Austin, whose husband operates the boat *Liny;* Erna Selford, boat *Mary Ann S;* Second Vice Pres. Otie Easton, *Lady Lou;* Recording Secy. Anita Brandenburg, *Aquarius;* Corres. Secy. Dorothy Farnell, *Dorothy R.* and Treas. Eunice Holland, *Valiant.*

John Harrison, head of Harrison Sales Co., New York City sales agents for the Bumble Bee line of seafoods.

New York Market Just Likes Good Salmon

Salmon is still a favorite of the New York consumer, even though prices are high—so long as it is good salmon.

That is the testimony of W. John Harrison, head of Harrison Sales Co., sales representatives of the Columbia River Packers Association, Inc., in the New York metropolitan market, where its "Bumble Bee" brand is generally recognized as the leader in salmon and mighty important in tuna as well.

"I'll confess that the $26 price this summer on "Bumble Bee" fancy Chinook halves made us catch our breath; but we found the consumer would buy it at the 65c normal shelf price which that necessitates. I shall not claim the volume is as great or the sales as brisk as they would be at a lower price, but the movement is surprisingly steady despite the high price necessitated by this year's acute shortage of Columbia River fancy Chinooks," Mr. Harrison said when he visited the Pacific Northwest early in August in the course of a trip to the C.R.P.A. headquarters in Astoria.

"However, there's nothing like an occasional 49c special to move fancy Chinooks, and you just can't get that at $26 per case.

"Chunk style Albacore is a hot favorite in New York today; and hand-packed Bluebacks are winning a position in the fancy trade, which requires more strictly fancy Chinooks than the United States produces.

"New York is a great food market, but there isn't a one of us selling there who isn't benefited by getting out into other cities now and then to study how they sell and what they buy; and particularly by getting out here on the Coast where the goods are packed," said Mr. Harrison.

Sablefish Enjoys Fancy Price for Prime Goods

Large sablefish, particularly that from favored areas, was enjoying a somewhat spectacular market during August, commanding 19c or better at such Alaska ports as Pelican. This was as much as large halibut was commanding on the Seattle market at the time.

Tarr Talks Antibiotics To British Scientists

Dr. Hugh L. A. Tarr, director of the Research Board of Canada's technological station at Vancouver, and pioneer in the use of chlortetracycline in protecting the freshness of foods, spent part of the summer in England, particularly in connection with discussions of the use of "Acronize" on food fish.

Miller Sales Merges With Trixler Brokerage

Miller Sales Company of Portlan Ore. has merged with the Trixler Br kerage Company, the largest brok of frozen foods in the State of Orego the company believes.

The Miller Sales Company lin were Pictsweet frozen foods, Churc ill's English muffins, Ocoma poult and prepared fods, Sunnee steaks, a Korry cakes. The Trixler Brokera Company will be selling these lines a state-wide basis in addition to the present frozen food accounts whi are: SeaPak Corporation, Rosita Pro ucts Company, Ore-Ida Potato Pro ucts Company, Sylvia's Pizza Hous and Chicken of the Sea, Inc.

The Trixler Brokerage Company canned foods department represen White Star tuna, Van Camp's pork a beans, etc., Stokely's fruits and veg tables, and Duncan Hines salad dres ings.

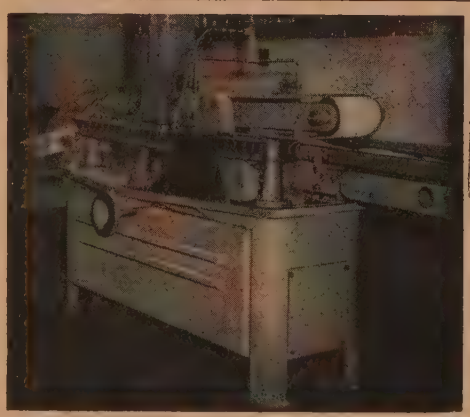
Principals in this move are J. Th mas Trixler, general manager, and R. Fernandez, frozen food manage

Townsend Studies Gulf Menhaden Installations

J. R. Townsend, San Francis fishery consultant, is back from a tr to the Gulf Coast where he visite the various menhaden plants, partic larly in regard to fishing gear a plant machinery after Hurrica Audrey.

Mr. Townsend reports that tw menhaden plants at Cameron, La were severely damaged by the storm

John F. Chaddock Jr., has become a sociated with Berger Plate Co., San Fra cisco, food brokers as sales manager the brand merchandising departmen Among other lines Mr. Chaddock will responsible for are Bumble Bee tuna, a Pioneer clams.



The PAK-SHAPER

PREFERRED BY LEADING TUNA CANNERS!

Introduction of the PAK-SHAPER in 1949 developed in tuna canning a greater mechanization than had come about in 30 years of previous growth. Subsequent experience has proved its value to the industry. A large percentage of major tuna operators now employ the PAK-SHAPER.

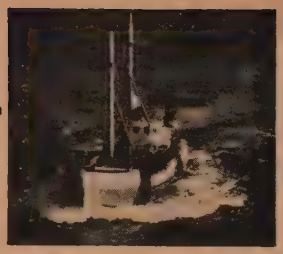
The PAK-FORMER, designed exclusively for Chunk and Grated Style Pack, is now available to the tuna industry under similar terms as the PAK-SHAPER.

For Complete Information Write to

E. H. CARRUTHERS CO.

P. O. Box 1322, Warrenton, Oregon

HIGH SEAS-DRY YOU!



Shipping green water? Let it come! U. S. Rubber Raynsters are designed to keep you watertight. And they're specially compounded to fight off abrasions, sun and cold.

U. S. Peerless Neoprene Suit
• Neoprene coated outside, inside • sheds acids, oils • smooth corduroy-tip collar • full-length jacket • bib-front overalls, adjustable • cut-off band, shortens without raveling • in black, yellow, olive drab

U. S. Ruff-N-Tuff Eureka Suit
• strong, heavy-coated fabric • vulcanized waterproof seams • inside fly front • corduroy-tip collar • bib-front overalls • elastic suspenders • cut-off band, shortens without raveling • in black, yellow

Storm King Boots • tempered rubber • reinforced toe • deep-cleated outsole

US ROYAL FOOTWEAR

Black Body Boots • "Shockproof" insole • cleated outsole • webbing shoulder straps

U. S. INDUSTRIAL RAYNSTERS®
U. S. ROYAL RUBBER FOOTWEAR

Sold only through industrial and retail stores

United States Rubber
Rockefeller Center, New York 20, N. Y.

If only the Monel* alloy shaft in the *Dickie Walker* could talk! Back in 1949 it was installed on this exploration boat by the Dantzler Boat & Barge Co. of Pascagoula, Miss.

Badly scored by cable, tough Monel shaft stays on the job

When the *Dickie Walker* came in for haul-out in 1956, her owners had a surprise: a steel cable had whipped around her 3-inch Monel shaft and chewed it down at one point to 2⅛ inches!

No one can say how long *Dickie Walker* ran on her damaged shaft. But she's still running on it today. They simply cut off the damaged end, machined a new taper and keyway, added a new shaft section forward and reinstalled the original Monel* nickel-copper alloy shaft!

Boat builders and operators have come to expect superior service from Monel shafts. They've learned from experience that corrosion-resisting Monel alloy is tough enough . . . stiff, hard and strong enough for duty that would take a high toll of most other metals.

Choose Monel alloy shafting when you replace your present shaft — or when you buy or build a new boat. Choose tough, Monel alloy for all marine equipment subject to hard use and corrosive attack. *Registered trademark

THE INTERNATIONAL NICKEL COMPANY, INC.
67 Wall Street New York 5, N. Y.

INCO TRADE MARK

MONEL
THE SEAGOIN'* METAL

NORTHILL

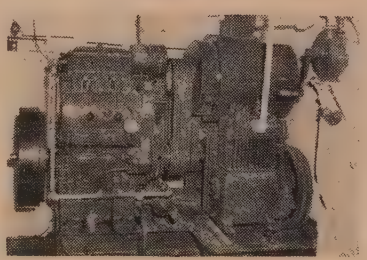
DIGS FAST . HOLDS FAST... BREAKS OUT EASY

THE GARRETT CORPORATION AIR CRUISERS DIVISION
BELMAR, NEW JERSEY

DESECO

Lister

GENERATOR



"turns an air compressor, 1½ in. bilge pump and 10 KW generator at the same time . . . just as if it had no load at all!"

Says Capt. Vincent Bono, Skipper and Co-owner of new 93′ dragger, Carmen & Vince, Medford, Mass.

"WORKS BEAUTIFULLY, IS VERY CHEAP TO RUN",

continues Capt. Bono, "uses about 10 gallons of fuel for 6 hours of operation. We use the Lister to charge the batteries and run the bilge pump while lying-to at sea. Also to keep up the batteries when we run our 5 HP fish hoist to unload the catch."

This unit was purchased upon the recommendations of the yard and of other boatowners in this fleet. (Lister auxiliaries are used on ¾ of New England's fishing fleet!)
Write for complete data on Lister diesels for propulsion and auxiliary power, and name of nearest dealer.

Distributorships available in some areas.

LISTER-BLACKSTONE, Inc.
42-32 21st St., Long Island City 1, N. Y. Tel.: STillwell 6-8202

Seattle Distributor: MARINE EQUIPMENT COMPANY, Inc.
5448 Shilshole Ave., Seattle

California Distributor: CROFTON COMPANY
San Diego, San Pedro, Newport Beach

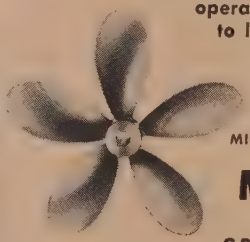
In Canada: *Toronto ● Montreal ● Vancouver*

NOW!

PUSHES TWO LARGE LOADED SHELL BARGES AT 9½ M.P.H.

Tug Capt. FRANK E. BAUER now swings 54 x 36 MICHIGAN STAR WHEELS

After the tug, Capt. FRANK E. BAUER, was fitted with MICHIGAN STAR 5-blade wheels here are some of the things the owners said: "well pleased with the performance of these wheels . . . greatly reduced vibration formerly experienced . . . now able to push 2 of the large shell barges fully loaded at 9½ miles per hour." Measured in better performance, economy of operation and reduction of lay-ups, due to longer-lasting, tougher metals, you'll find switching to MICHIGAN ONE OF THE BEST INVESTMENTS YOU EVER MADE. Write for catalog.



MICHIGAN STAR 20" thru 72" Dia.

MICHIGAN WHEEL COMPANY
GRAND RAPIDS 3, MICHIGAN

Wm. H. HUTCHISON

and

Associates

Fishing, MARINE & INDUSTRIAL SUPPLIES

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MARLON, LIVLON, NYLON
and COTTON FISH NETTING
MFG. BY "MOMOI"

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1956 B. C. Fishery Value Third Best in History

• British Columbia's fish landings in 1956 had a total value of nearly $36,-000,000, the third highest on record and approximately $4,000,000 higher than the average for the past five years.

Fisheries catch statistics for 1956 prepared by Blake A. Campbell, Chief Economist, Department of Fisheries, reveal that fishermen's earnings last year climbed to the highest point since 1951.

A record herring catch and high unit prices for salmon, halibut and other species were cited as main factors in the increase.

While the total salmon catch was only 117,000,000 pounds, lowest since 1944, high unit landed values increased returns to $21,356,000, nearly $3,000,000 more than in 1955.

Salmon trollers, particularly those operating off the west coast of Vancouver Island, had a very good year, producing 23,000,000 pounds of salmon for which they received $5,800,000, the highest ever recorded.

Salmon gill-net landings also were equal to those of 1955, totalling 52,-000,000 pounds valued at $10,400,000, more than $3,000,000 higher than 1955.

Salmon seiners showed a marked drop, with landings declining from 41,000,000 pounds in 1955 to 41,-000,000 pounds valued at $5,100,000 in 1956.

Salmon fishing highlights of the year as revealed in the above mentioned report showed that catches from the Naas river totalled nearly 1,000,000 pounds or more than double the 1955 total. Rivers and Smith Inlets were the top sockeye producing areas and more than 1,500,000 sockeye were caught in these two areas. These represented nearly half the total provincial catch of this species.

Pink salmon catches in most of the northern areas of the Province were also better than expected when compared with the 1954 cycle year.

Another fishery of importance in 1956 was that carried on by gillnetters and seiners fishing in the Straits of Juan de Fuca during the late summer. Gillnetters reported a total of 206,000 cohoe and 85,000 sockeye, while seiners caught 216,000 sockeye and 83,000 cohoe in the same area.

The chum salmon fishery while not up to expectation totalled 27,300,000 pounds, which was better than 1955. As a result of these short supplies, prices increased sharply in the late fall with fishermen receiving $3,317,000 as compared with $1,800,000 in 1955.

Despite a six-week tie-up in the early fall herring fishery, the catch during the calendar year of 1956 totalled 245,697 tons valued at well over $7,000,000 and both quantity and value were the highest in the history of the herring fishing. The waters off the Queen Charlotte Islands produced nearly 86,000 tons, or more than four times as much as produced in this area in any previous year. Also contributing to the record herring yield was an increased summer production amounting to some 31,400 tons.

As a result of depleted halibut storage, stocks at the start of the season coupled with a compulsory "lay-off" between trips, instituted by fishermen, prices for halibut in 1956 were up sharply. While the 23,300,000 pounds of halibut reported was nearly two million pounds lower than the 1954 record, the landed value to fishermen totalled $5,067,000, nearly double that of 1955, and more than $1,000,000 higher than the 1954 return.

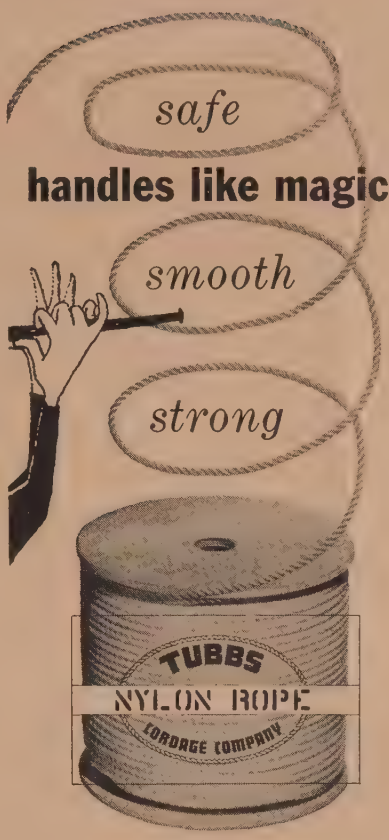
Other fish landings which showed increases were soles, which totalled 8,300,000 pounds valued at $390,000, and ling cod production, which was the highest since 1949, and totalled 4,800,000 pounds valued at $423,000.

The production of fish, mostly turbot and hake, for mink feed also increased to all time record levels in 1956, and totalled 11,000,000 pounds valued at $269,000 as compared with 7,000,000 pounds worth $164,000 in 1955.

Production of shellfish added a little over $1,000,000 to the landed value. Oyster production had a record total of nearly 90,000 shucked gallons valued at $340,000, with shrimps and prawn landings totalled 1,200,000 pounds worth slightly less than $200,000. Crab production declined from 1955, and totalled 3,570,000 pounds with a landed value of $371,000.

Bioproducts, Inc., Buys Former Pilchard Plant

The old West Coast Fisheries Corporation pilchard reduction plant at Flavel, Ore., was purchased recently by Bioproducts, Inc., which operates a reduction plant, stickwater condensing plant, vitamin oil and by-products specialty laboratory nearby.



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For complete information about Tubbs line of synthetic and natural fiber rope, write Dept. A-9

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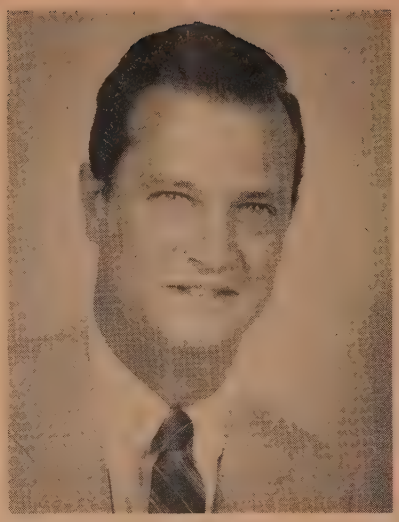
W. L. Nimick to Handle Standard Steel Process Sales

New responsibilities and changes in position for top management officials of Standard Steel Corporation of Los Angeles and Decatur, Ill. were announced this week by C. N. Rees, executive vice president.

Walter J. Kalmeyer, vice president in charge of manufacturing, was appointed to the board of directors; Robert R. Johnson, vice president and general manager of Leader Iron Works Division, Decatur, was elected a vice president of Standard Steel; Norman Pitt, chief engineer, was appointed a director; Clay C. Hopper, assistant general manager, was named secretary of the corporation; K. G. Thies, sales manager, was appointed contract administrator; Webb L. Nimick was named general sales manager in charge of the process equipment and special fabrication division; and Wesley V. Davidson, assistant sales manager of the road machinery division, was advanced to general sales manager of that division.



Webb L. Nimick, appointed general sales manager for Standard Steel Corporation's process equipment division.

Stern Can Company Adds Two to its Directorate

Harold S. Stern, president of Stern Company, Inc., Boston, announces election of two of the company's offi to its board of directors. The new direc are Harvey Weiss, secretary of the c pany, and Stuart L. Stern, vice-presid

Mr. Weiss, a graduate of the Univer of Illinois, holds a Masters degree f the University of Connecticut. He been associated with Stern Can since Mr. Stern, grandson of the founder of 56-year-old concern, represents the t generation in the company. A grad of Tufts College, Mr. Stern served as tain in the U. S. Army Air Force du World War II.

Coincidental with his election to Board of Directors was the announcen that Mr. Stern has also assumed the p tion of assistant treasurer and assis general manager of the company.

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LINES and LEADERS

Lloyd Berry Handles Selling For American MARC

The appointment of Lloyd E. Berry as vice president in charge of sales for American MARC Inc., California designers and manufacturers of diesel engines and generators, was announced today by W. Denis Kendall, president.

Before joining the company's headquarters in Inglewood, Berry was distributor of the company's line in the South and Southeastern states officing in Houston, Texas.

In sales and distribution since 1920, Berry was sales vice president for National Automotive Parts Corporation's diesel distribution and previously distributor for Black-Decker, tool manufacturers.

"We will intensify our nation-wide distribution of American MARC products through established diesel dealerships," Mr. Berry said. "Overall planning calls for the establishment of 6 regional sales divisions and 5 parts warehouses to provide efficient distribution throughout the U. S."

Clyde Holcomb, Edison Battery Veterans, Dies of Heart Attack

Clyde F. Holcomb, who served the fishing, forest and mining industries of the Pacific Northwest for more than three decades as a salesman and district manager of the Thomas A. Edison, Inc., Storage Battery Division, died of a sudden heart attack at his home in Seattle in midsummer.

He was widely known in the mine, mills and fleets of the Pacific Northwest states, and always identified with Edison batteries, which he had sold for 31 years.

Mr. Holcomb became division manager in Seattle in 1948 upon the retirement of Roster C. Gibson, who had held that position since 1920, and who retired after 43 years with Edison.

Upon Mr. Holcomb's death, Mr. Gibson came out of retirement for a time to manage the Seattle district until Charles Farrell, who has been associated with Edison for a number of years, was promoted to the position of district manager.

Lister Diesels Provide Only Power on "Mayflower II"

While many marine requirements of the present day were waived for the voyage of the **Mayflower II** across the Atlantic, those calling for radio, emergency power pumps and a powered lifeboat could not be ignored.

Accordingly, two Lister diesels were chosen for this specialized duty. One installed aboard the vessel itself drives a generator for radio current, and can power a pump through take-off. The other is installed in the ship's "long boat".

Snow-Nabstedt Gear Data Presented in New Booklet

Snow-Nabstedt Gear Corporation, manufacturers of marine reverse-reduction gears for over 50 years, has just released comprehensive new literature on the new 3060 and 3970 series, both engineered to transmit maximum power of modern high-speed heavy-duty diesel engines. Copies are available through S-N distributors or by writing direct to The Snow-Nabstedt Gear Corporation, Hamden, Connecticut.

W. P. Fuller Paint Products To Be Made in Ensenada, Mexico

A major manufacturing venture in Mexico will be launched this month as the latest foreign enterprise of W. P. Fuller & Co., it is announced by A. H. Brawner, Jr., manager of the company's export sales division.

The new enterprise, named W. P. Fuller & Co. de Mexico, S. A., is supported by both Mexican and American capital.

Wulfrano Ruiz, one of Mexico's leading industrialists and civic leaders, will serve as president and treasurer of the company. His brother, Humberto Ruiz, will act as vice president and secretary. Both are major stockholders in the new firm.

Administrative headquarters will be maintained in Tijuana with the manufacturing plant located in Ensenada.

Lines of Fuller finishes to be produced at the Ensenada factory include house paints and consumer products.

Canco's Coil Tinplate Plant Opens New Day in Can-Making

The West's first plant designed to process tinplate from coils was dedicated at ceremonies in Oakland late in August.

Occupying 60,000 sq. ft. of floor area and capable of turning out 200,000 tons of processed can making plate a year, the new facility was hailed by William C. Stolk, president of the American Can Company, as "a first step in a revolution that in a comparatively few years will render present-day can-manufacturing operations obsolete."

The Oakland processing plant is one-third of a $27,000,000 Canco construction and equipment program aimed at establishment of coil processing facilities in major U. S. can making centers.

As put into production, the Oakland coil plant automatically inspects, cuts and sorts sheets of tinplate and steelplate from coils weighing up to 15,000 pounds. Each coil is roughly three miles in length. During processing, a broad ribbon of metal whirs soundlessly through close-linked machines at speeds up to 600 feet a minute.

Booklet on Anchoring Offered Free to Fishermen

In the two and a half years since its first edition rolled off the presses, more than 100,000 **Anchors and Anchoring** have been distributed free—and the demand constantly increases rather than slackens.

Written by R. D. Ogg, president of Danforth Anchors, and R. S. Danforth, founder and inventor, the 16-page, two color booklet presents a comprehensive survey of anchor history, testing, problems and recommendations.

The difficult feat of writing for both the layman and the expert has been accomplished in **Anchors and Anchoring.** Its style is such that a newcomer to boating can understand it and yet the facts and figures are also presented and verified in such a manner that the most exacting expert is satisfied.

Since its first appearance Danforth Anchors has made the book available free of charge to anyone requesting it of **Danforth Anchors,** 2153 Allston Way, Berkeley 4, Calif.

11 Foreign Can Makers Enter Pacts With Canco

Technical assistance agreements have been made by American Can Company with leading can manufacturers in 11 countries in the past year, according to an announcement by Canco.

In the same period, about 25 foreign can company representatives — technical trainees as well as management personnel —have visited the United States to confer with Canco officials and study operations in the company's plants throughout the country.

Currently, 13 Japanese—from can-making subsidiaries of Yawata Steel & Iron Company, Ltd., the U. S. Steel of Japan—are working in Canco plants in Milwaukee, Indianapolis and Baltimore.

The technical assistance agreements provide for an exchange of technical personnel as well as technical data. Canco, with the world's largest research facilities in the container field, is making available its complete store of technological know-how to the foreign companies.

Agreements have been made with can companies having plants in England, France, Denmark, Holland, Germany, Australia and New Zealand, Japan, Mexico, Venezuela, and Brazil.

Three Marine Specialists Associate in Brinck Firm

Philip Brinck, naval architect of Seattle, has joined in a newly formed firm of architectural and engineering consultants, in partnership with Ernest Peck and Frederic Salinger. Name of the firm is Philip Brinck and Associates, and its location is 1102 Westlake North, Seattle, on Lake Union.

New Brochure Available for GM Diesel's 71 "E" Engine

Detroit Diesel Engine Division, General Motors Corporation, has a new four page brochure describing its recently developed Series 71 "E" marine work boat engine.

The brochure explains how the work boat engine will give more profit for commercial marine operations. The engine rated at 170 hp. will save 10% in fuel.

Copies may be obtained from Detroit Diesel Distributors and Dealers or by writing the Division, 13400 W. Outer Drive, Detroit 28, Michigan.

Improved Combustion Raises G. M. Diesel's Power Rating

The Detroit Diesel Engine Division of General Motors has announced a new Series 71 "E" model for work boats which develops 15% more continuous horsepower than comparable models in the division's line and has its full-throttle output fixed at its most efficient, day-to-day rating.

This increased rating is a continuous 170 shaft horsepower attained with substantial operating economies brought about by a 10% improvement in specific fuel consumption.

Largely responsible for the model's increased efficiency is improved combustion resulting from better engine breathing.

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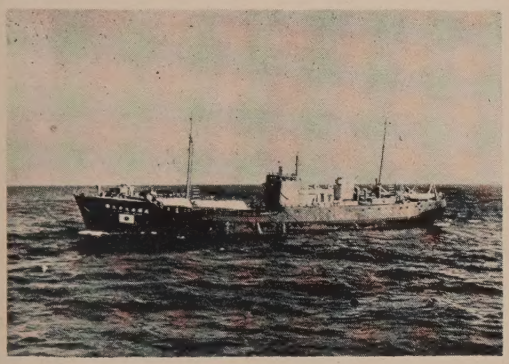
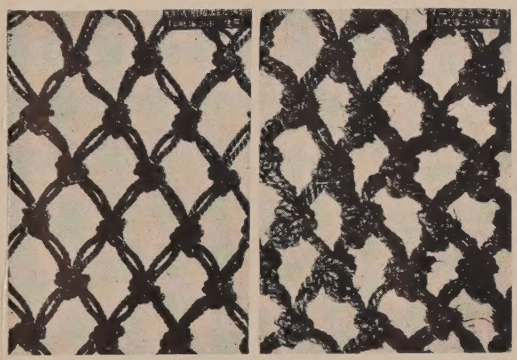


The above is the photograph of "No. 37 Taiyo Maru", a trawler, which belongs to the Taiyo Fishing Co., Ltd., one of the largest fishing companies in Japan. Since the adoption of Manryo fishing nets, it is said that her operation has become more successful. Today, the bulk of the Japanese trawlers are using Manryo fishing nets because they possess strong resistance to wear, economize labor and assure a better haul.

The photos below show the portion of the cod-end of trawl nets which are made of Manryo netting (left), and manila hemp (right) to make comparison of the conditions of wear both after having undergone operations of three voyages. They show that manila hemp has already worn out considerably, displaying greater roughness whereas Manryo shows almost no damage.



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